RELIABLE

2200SZ

INDUSTRIAL ZIG-ZAG SEWING MACHINE

INSTRUCTION MANUAL

1.APPLICATIION

This Reliable 2200SZ Zigzag Machine is for;

-Zigzag and ornamental stitching in a variety of width and stitch length.
-Perfect straight stitching.
-Superfine control of stitch length insures perfect satin stitching.

Model 2200SZ

This machine is manufactured for atrisan zigzag sewing and is suited for sewing light weight and medium weight materials.

2.NOTES ON SAFETY

The machine must only be commissioned in full knowledge of the instruction manual and operated by persons with appropriate training.

Before putting into service, also read the safety notes and the instruction manual of the motor supplier.

The machine must be used only for the purpose intended. Use of the machine without the safety devices belonging to it is not permitted.

When gauge parts are exchanged (e.g.needle,presser foot, needle plate, feed dog and bobbin),during threading, when the workplace is left unattended, and during service work, the machine must be isolated from the mains by switchingoff the main switch of disconnecting the main plug.

On mechanically operated clutch motors without start inhibitor, it is necessary to wait until the motor has stopped.

General servicing work must be carried ou only by appropriately trained persons.

Repairs, conversion and special maintenance work must only be carried out by technicians or persons with appropriate training.

For service or repair work on pneumatic systems, the machine must be isolated from the compressed air supply system. Exceptions to this are only adjustments and function checks made by appropriately trained technicians.

Work on the electrical equipment must be carried out only by electricians or appropriately trained persons.

Work on parts and systems under electric current is not permitted, except as spectified in regulations EN50110.

Conversions or changes to the machine must be made only on adherence to all safety regulations.

For repairs, only replacement parts approved by us must be used.

Commissioning of the sewing head is prohibited until such time as the entire sewing unit is found to comply with EC regulations.

Meanings of the symbols:

Danger spot!
Items requiring special attention

Danger of injury to operative or service staff.
Be sure to observe and adhere to these safety notes!

Earth

3.COMMISSIONING

To avoid disturbances or damages, it is absolutely necessary to observe the following instructions:

Before you put the machine into operation for the first time, clean it throughly and oil it well (see page 2).

Have the mechanic check whether the motor can be used with existing mains voltage or not, and that junction box is correctly connected. Do not start the machine if the voltage is not correct!

When the machine runs, the balance wheel must rotate toward the operator. If it does not, have the electrician change the wires on the motor.

4.INSTALLING THE BELT GUARD

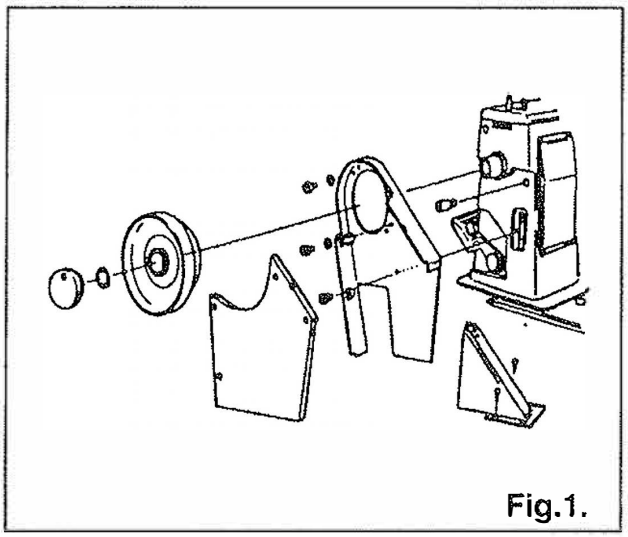


Fig.1.

CAUTION

Switch off the machine.
Set sewing head upright again useing both hands.
Danger of crushing between sewing head and table top.
Do not run machine without belt guard! Danger of accidents!

Above table surface

Align the belt guard so that hand wheel and V-belt move freely, then screw it down is this position (see Fig.1).

Below table surface

Install belt guard so that motor pulley and V-belt will rotate freely without interference.

5.LUBRICATION

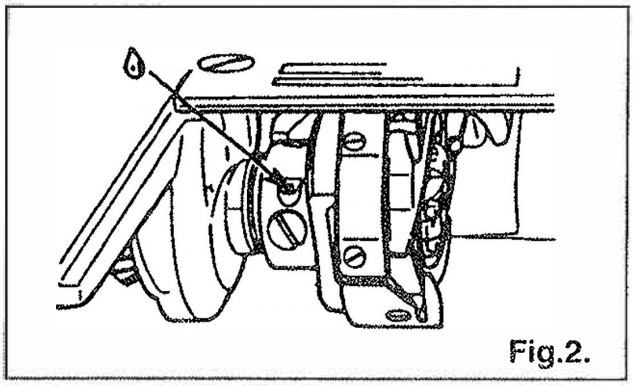


Fig.2.

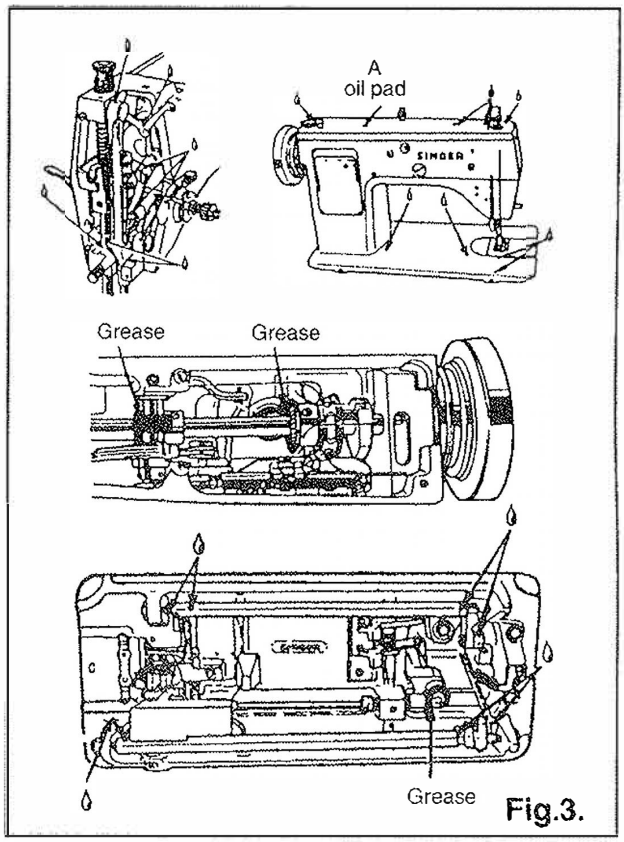


Fig.3.

CAUTION

Switch off the machine.
Set sewing head upright again using both hands.
Danger of cruching between sewing head and table top.

-Rotating hook and area under throat plate.
Turn hand wheel over toward you until oil hole in rotating hook appearin sight.
Apply one or two drops of oil to the oil hole (see Fig.2)

Loosen and remove screws and remove face plate by sliding it downward.

Remove screws and lift off arm top cover.
Clean and oil the places indicated.

Apply sufficient oil to all oil felt shown in Fig.3
Apply a small amount of grease to gear teeth indicated with word ' Grease' in Fig.3.

Also apply a drop of oil to all other oiling points shown with marks .

Keep oil pad (A) under arm top cover saturated with oil.

CHOICE OF OIL

(1) For (20U73/73B/83/83B) machines
Only use oil with a viscosity of 45.0 mm^2/sec.at 38 °C and a density of 0.888 g/cm^3 at 15 °C .

6.NEEDLE AND THREAD

Selection of the proper needle depends not only on the machine model, but also on the material and thread used. For selection of proper needle and thread sizes to be used on the various machine models please refer to the table below.

Model	73,73B,83, 83B		
Application of class	For light-weight materials	For medium-weight materials	For medium-heavy weight materials
Max.thread size(Nm)-Synsthetic*	120	60	30
Needle size (1/100mm)	10	12~16 (80~100)	18~19 (110~120)
Needle catalog (Needle system)	1910-05 (135x9)		
***or an equivalent size of other types of thread**			

7.INSERTING THE NEEDLE

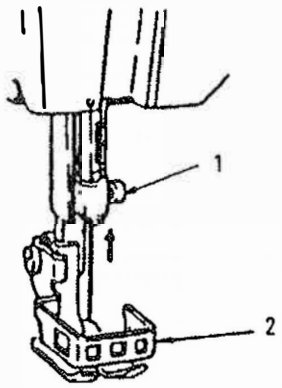


Fig.4.

CAUTION

Switch off the machine.
Do not operate without finger guard. (2) (See Fig.4)
Danger of injury !

Use needle cat. No. 1910-05 needle system (135X9) only.

Raise needle bar to its highest position by turning hand wheel toward you.

Loosen needle set screw (1) (See Fig.4) Insert the needle in the needle bar and push it up as far as it will go.

Make sure its long groove faces toward the front. Tighten needle set screw (1) securely.

8.TO REMOVE THE BOBBIN CASE

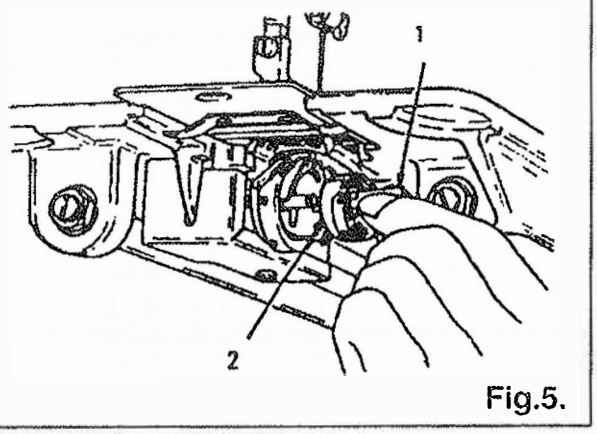


Fig.5.

CAUTION

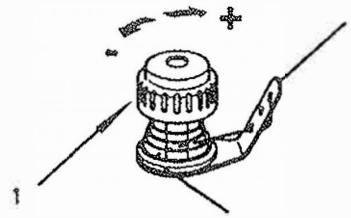
Switch off the machine.
Do not operate machine with throat plate left open.

1.Open bed slide.

2.Raise latch (1) (see Fig.5).

3.Lift out bobbin case (2) (see Fig.5).

9.TO WIND THE BOBBIN



Threading the pre-tension for bobbin winding

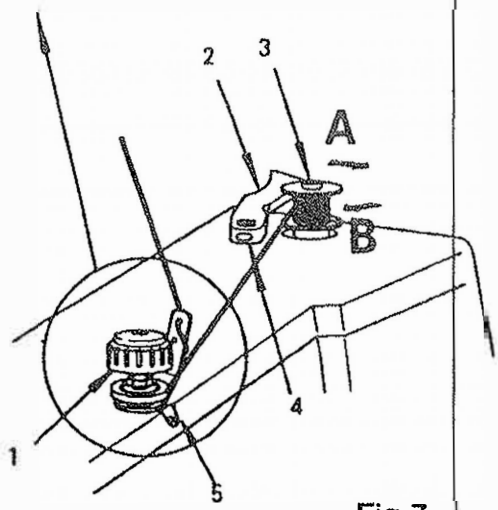


Fig.7.

CAUTION

Do not guide or hold thread when winding the bobbin.

1.Place bobbin on bobbin winder spindle (3), Fig.7, pushing it on as far as it will go.

Pre-tension (1) (see Fig.7).
+ .....More tension.
..... Less tension.

2.Push latch (2) in the direction indicated by arrow (A), then start the machine (see Fig.7).

Bobbin winder spindle (3), rotate in the direction indicated by arrow (B) (see Fig.7).

To adjust the amount of thread on bobbin, loosen screw (4) on latch (2) and swing the latch (2) away from you or toward you, as required.

For more thread on bobbin, swing latch (2) away from you.

For less thread on bobbin, swing latch (2) toward you. If thread winds unevenly on bobbin, loosen screw (5) and move pre-tension (1) up or down, as required , and tighten screw (5).

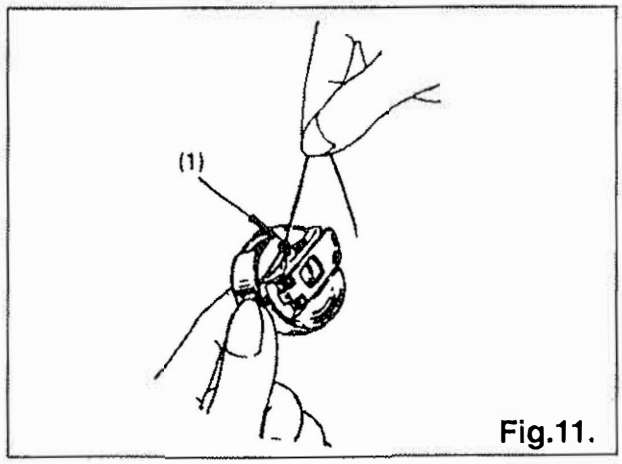


Fig.11.

1.Hold bobbin case so that thread unwinds in the direction shown in Fig.8, and put bobbin in bobbin case.

2.Pull thread into notch (1), and draw it under tension spring (2) (see Fig.9).

3.Draw thread out from slot(2) on end of spring (1), (Fig.10) and pass it through bobbin case thread guide (1),Fig.11. Allow about 4 inches of thread to hang freely from bobbin.

NOTE: When straight stitching, a better result can be obtained if bobbin thread is not threaded through bobbin case thread guide (1),Fig.11.

10.THREADING THE BOBBIN CASE.

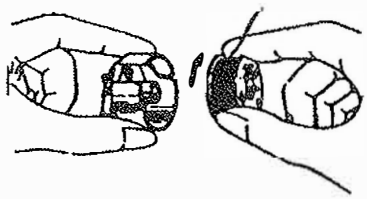


Fig.8.

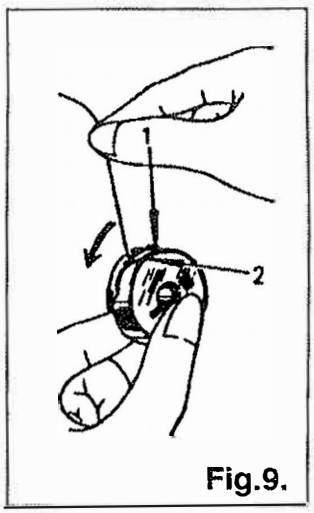


Fig.9.

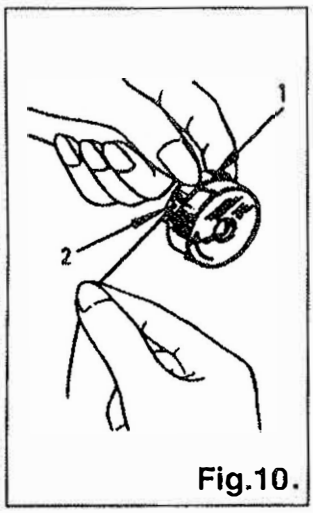


Fig.10.

11.TO REPLACE THE BOBBIN CASE.

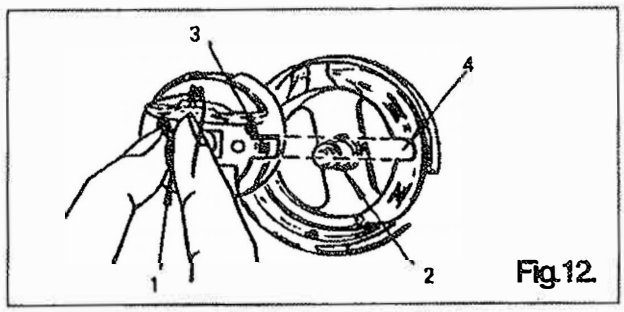


Fig.12.

CAUTION

Switch off the machine.
Do not run machine without closing bed slide. Danger of injury!

Hold bobbin case by latch (1) and place it on spindle of bobbin case holder (2) so that position finger (3) enters notch (4) at right of bobbin case holder (see Fig.12). Release latch and press bobbin case firmly in place to assure proper position. Close bed slide.

12.THREADING THE NEEDLE

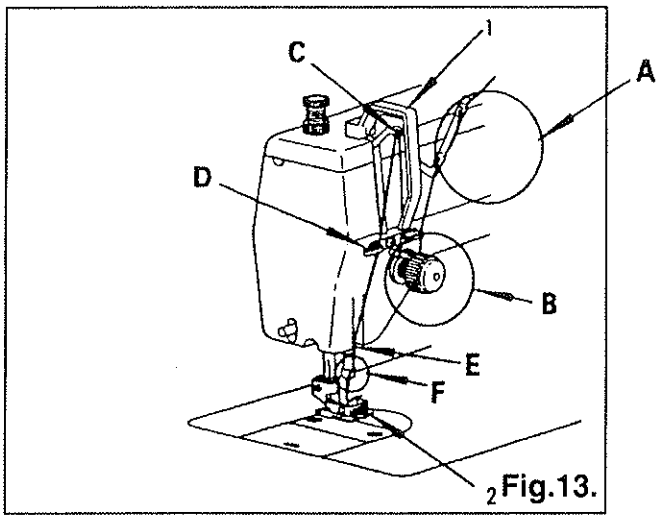


Fig.13.

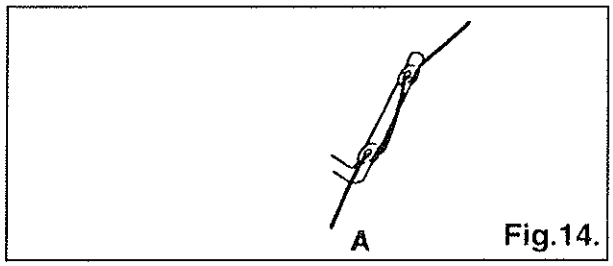


Fig.14.

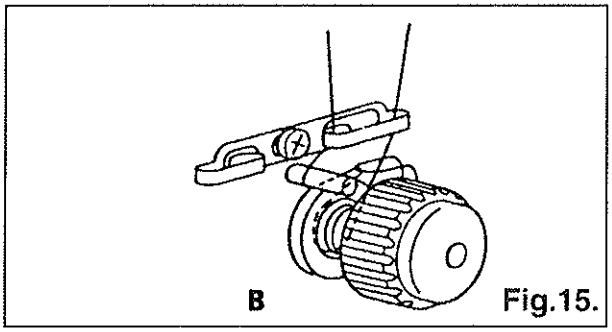


Fig.15.

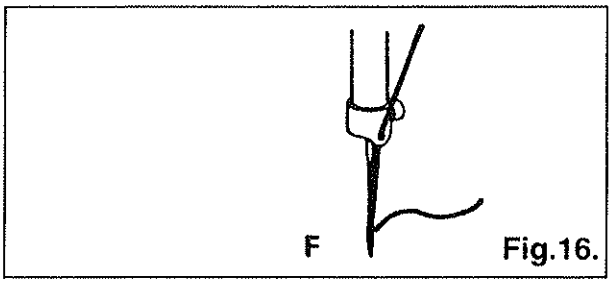


Fig.16.

CAUTION

Switch off the machine.
Do not operate without thread take-up guard.
Do not operate without finger guard
Danger of injury!

1.Lead thread from the thread unwinder through all the threading points A (Fig,14),B (Fig.15), C (Fig.13), D (Fig.13),E (Fig.13) and F (Fig.16) in the order shown.
2.Thread the needle from front to back, as shown in Fig.16.
3.Draw about 3 inches of thread through eye of needle.

13.TO ADJUST STITCH LENGTH

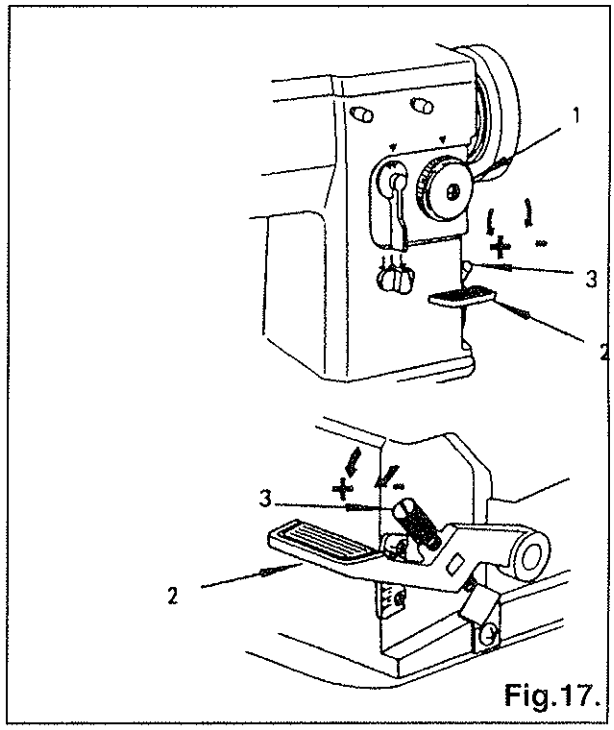


Fig.17.

Regulating the stitch length:

To regulate the stitch length, tum feed regulating dial (1) Fig.17, toward left or right as required.
+.....To lengthen
-.....To shorten

Changing to reverse feed:

Push lever (2),Fig.17.down for reverse feed and release for forward feed.
To regulate the reverse stitch length, tum thumb screw (3)Fig.17, toward left or right as required.
+.....To lengthen
-.....To shorten

14.TO ADJUST PRESSER FOOT PRESSURE

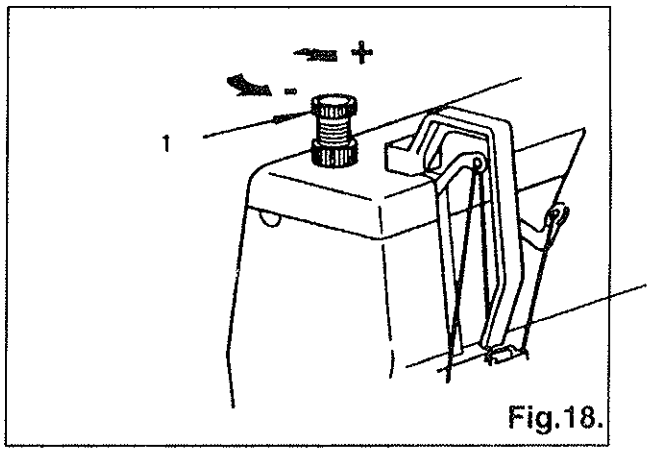


Fig.18.

To regulate the presser foot pressure, turn knurled thumb screw (1), Fig.18, toward left ro right as required.
+.....More pressure
-.....Less pressure

15.TO ADJUST NEEDLE THREAD TENSION

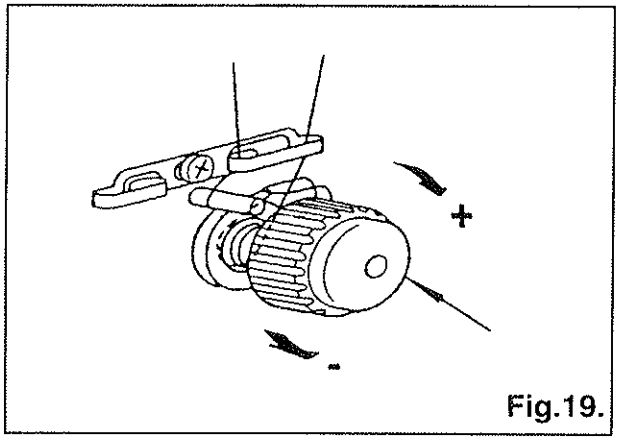


Fig.19.

Regulate needle thread tension withn tension regulating knob (1), Fig.19.

+.....More tension

-.....Less tension

16.REGULATING THE TAKE-UP SPRING

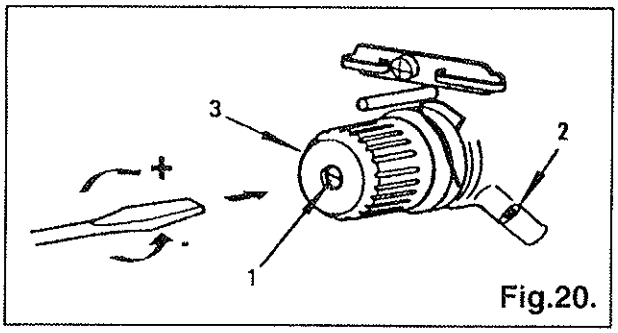


Fig.20.

Using a screwdriver in slot of stud (1), Fig.20, regulate take-up spring tension by turning stud (1), as required.

+.....More tension

-.....Less tension

To adjust the amount of take-up spring movement, loosen screw (2), Fig.20, and set take-up spring height by turning the entire tension assembly (3) toward left or right, as required. Securely tighten screw (2).

17.TO ADJUST BOBBIN THREAD TENSION

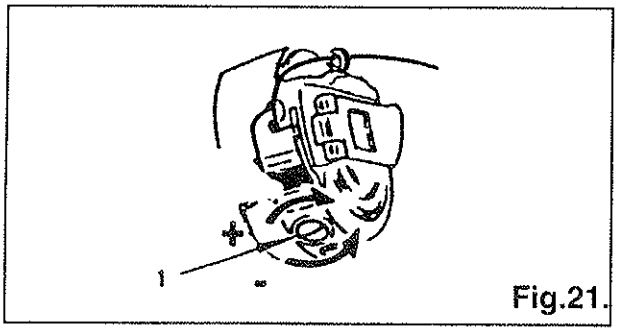


Fig.21.

Regulate bobbin thread tension with tension regulating screw (1), Fig.21.

+.....More tension

-.....Less tension

18.NEEDLE POSITION SELECTOR

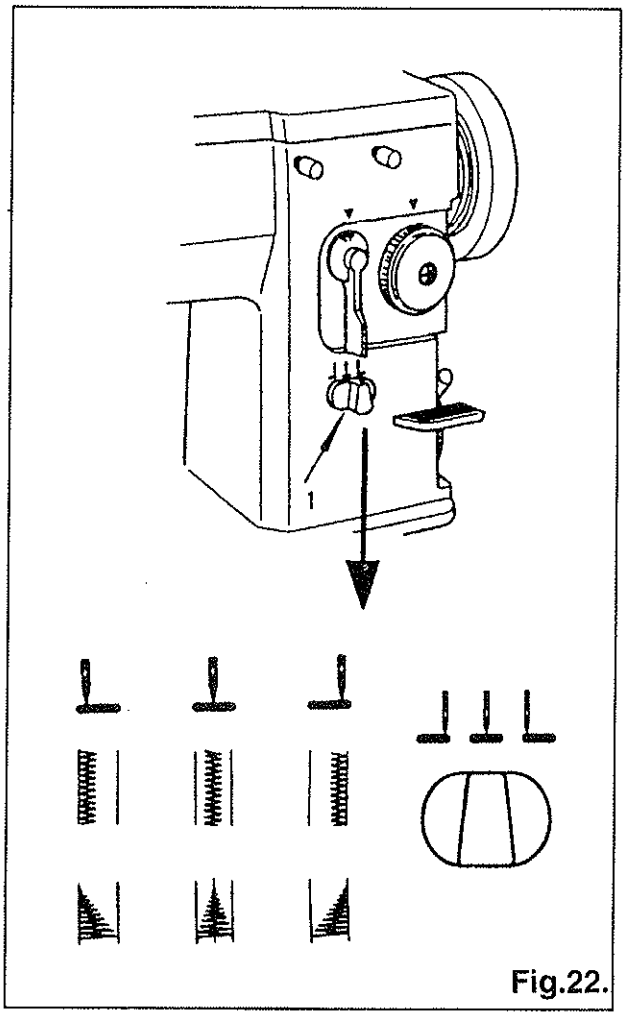
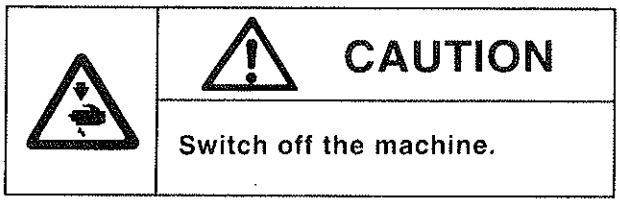


Fig.22.



CAUTION

Switch off the machine.

Left, Center and Right needle position settings are available for placement of both straight and zigzag stitching (see Fig.22).

To position, push lever in and move to desired setting.

Do not make any needle position adjustment while the needle is in the fabric.

19.STITCH WIDTH REGULATOR

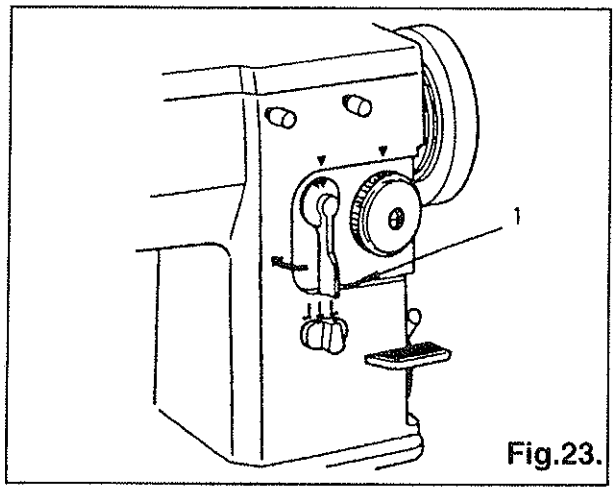


Fig.23.

The width of zigzag stitch is controlled with the spring biased stitch width regulating lever(1),Fig.23.

Maximum zigzag width;

20U73/73B	0~9 mm
20U83/83B	0~12 mm

Do not make any needle position adjustment while the needle is in the fabric.

20.HOW TO CONTROL THE WIDTH OF ZIGZAG STITCH

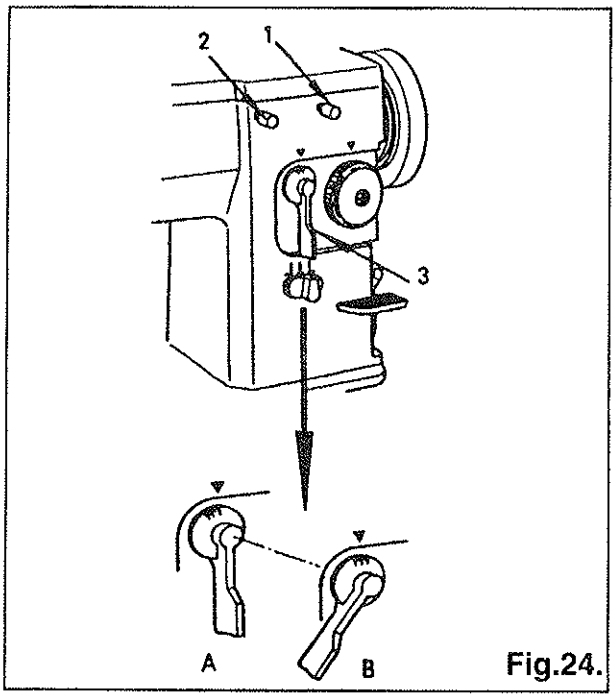


Fig.24.

To obtain minimum to maximum width (20U73/73B:9mm. 20U83/83B:12mm) zigzag stitches, first loosen thumb screw (2),Fig.24. to permit the stitch width regulator (3), Fig.24 to return to its zero position (see A, Fig.24) and retighten thumb screw (2).

Then loosen thumb screw (1),Fig.24. turn stitch width regulator (3) clockwise as far as it will go and while holding the regulator (3) in this position (see B,Fig.24), retighten thumb screw (1).

You can now regulate the stitch width regulator within the range of zero to maximum.

21.NEEDLE BAR FRAME CLAMPING DEVICE

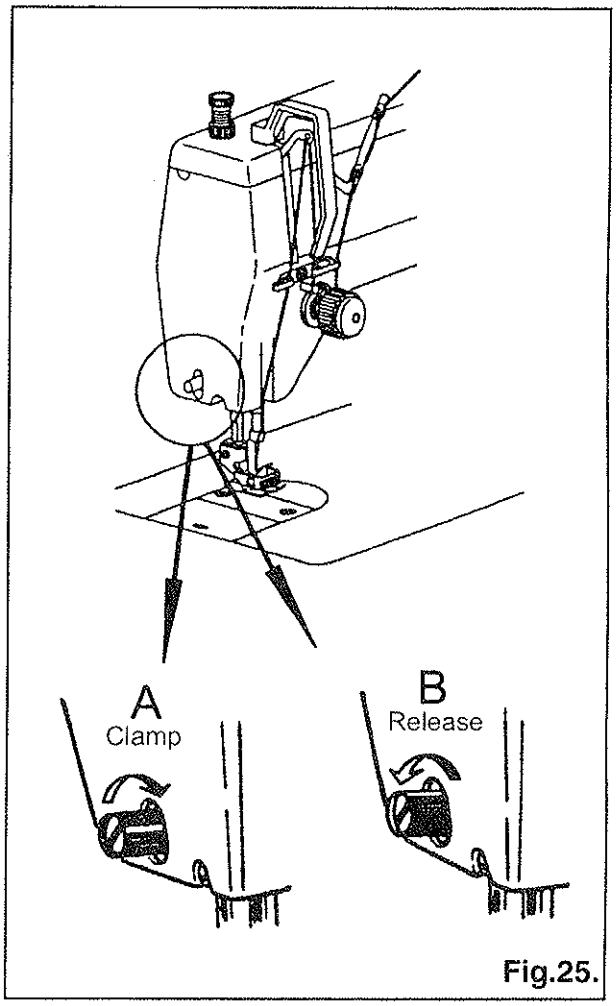


Fig.25.

	CAUTION
	Switch off the machine.

When straight stitching, a better sewing result can be obtained by locking the needle bar frame immovable with the clamping device (see Fig.25).

A: Clamp
B: Release

22.FITTING FOR STRAIGHT AND ZIGZAG STITCHING

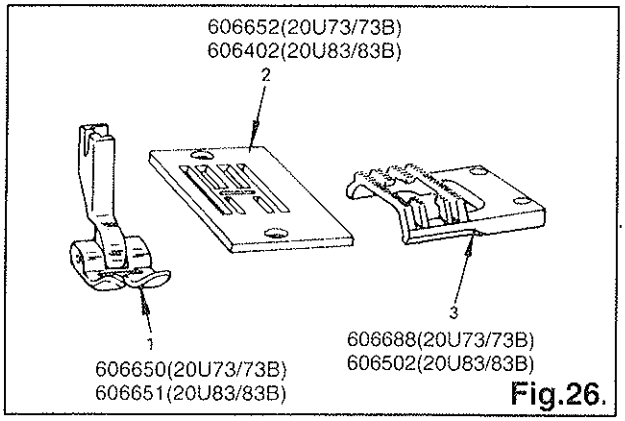


Fig.26.

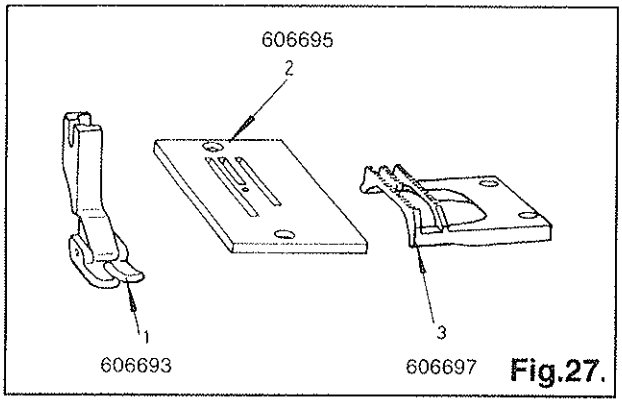


Fig.27.

General Purpose Presser Foot (1), Throat Plate (2) and Feed Dog (3) as shown in Fig.26, are used for straight and zigazg stitching.

Straight Stitch Presser Foot (1), Throat Plate (2) and Feed Dog (3) as shown in Fig.27, are used for straight stitching only.

23.CHANGING THE THROAT PLATE AND FEED DOG

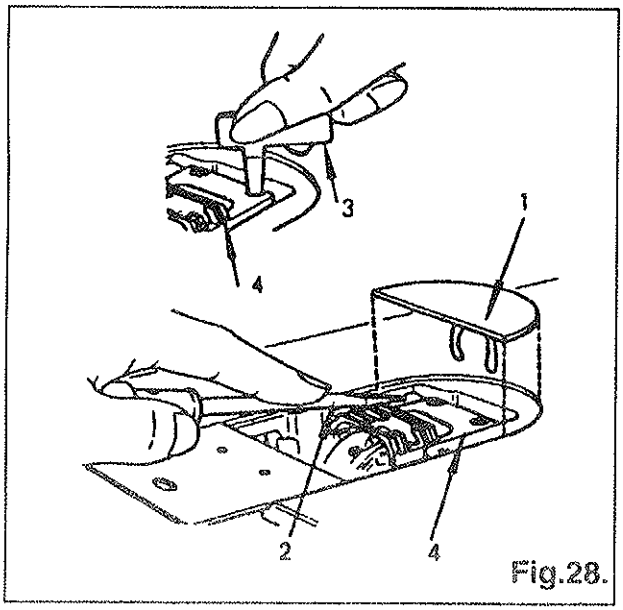


Fig.28.

CAUTION

Switch off the machine.

1.Open bed slide, then remove throat plate. (Use screwdriver (3) Fig.28, furnished with machine for removal and replacement of throat plate and feed dog.)

2.Using a screwdriver (2), remove bed plate (1) and remove feed dog (4) (see Fig.28).

3.To replace general prupose or straight stitch feed dog, fasten feed dog to machine temporarily and replace general purpose or straight stitch throat plate. Set feed dog correctly in position so that it will not hit the edges of feed dog slots in the throat plate.

4.Replace bed plate and press it firmly in place.

24.TO MOUNT THREAD UNWINDER

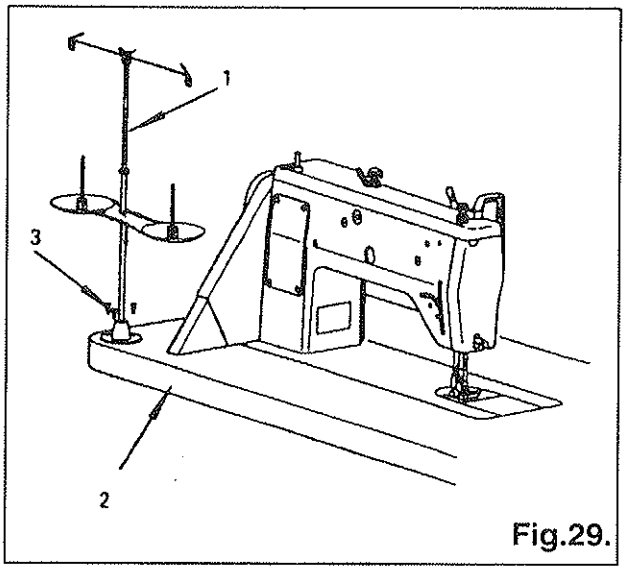


Fig.29.

Fasten thread unwinder (1) to table (2) with wood screws (3) as shown in Fig.29.

25.TO USE THE SPOOL CAP

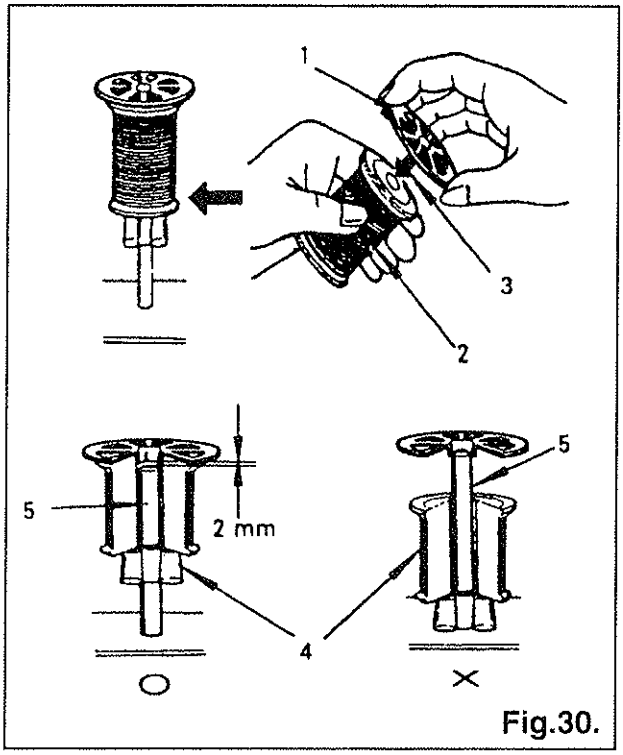


Fig.30.

When using a reel type thread spool,fit the spool cap (1) supplied with the machine onto the thread spool (3) (see Fig.30).

Set height of spool rest so there is approximately 2 mm clearance between top end of spool pin and the tip of the slotted spigot of the spool cap (see Fig.30).

The spool cap should never be fitted on the spool pin (5). Forcing it onto the spool pin may result in breaking the slotted spigot of the spool cap (see Fig.30).

26.TO USE THE ANTI-SPILL SLEEVE

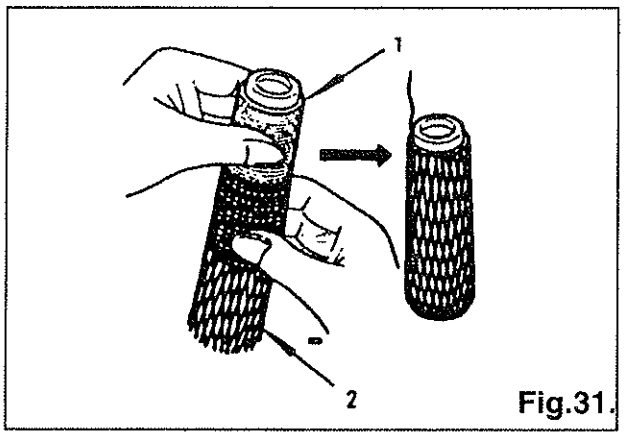


Fig.31.

When using synthetic threads that easily spill off the cone (1), slip the anti-pill sleeve (2) furnished with the machine over the thread from the bottom of cone (1) leaving the thread end to hang free at the top of anti-spill sleeve (2) as shown in Fig.31.

27.KNEE LIFTER

TO MOUNT KNEE LIFTER

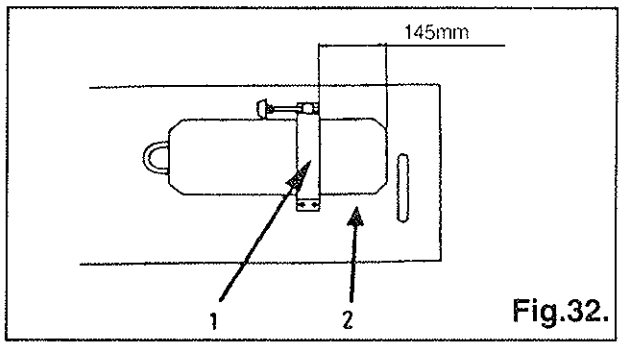


Fig.32.

Fasten knee lifter bracket (1) to underside of table (2) 145 mm from table cut-out as shown in Fig.32.

KNEE OPERATING PRESSER FOOT LIFT

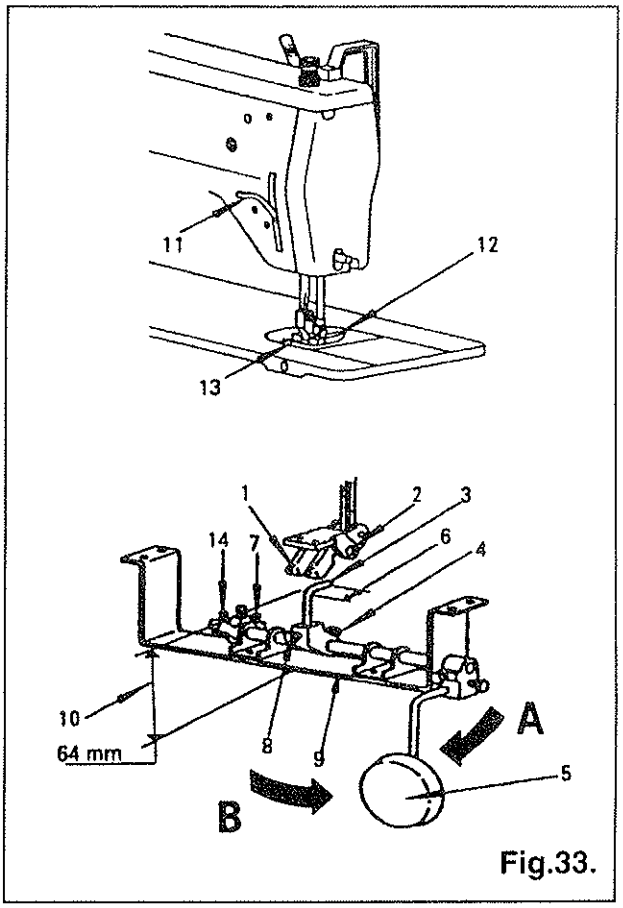


Fig.33.

CAUTION

Switch off the machine.
Set sewing head upright again using both hands.
Danger of crushing between sewing head and table top.

Bell.cranks (1) and (2) shown in Fig.33 are fastened to the underside of the bed. Bell crank (1) is used for lifting and lowering the presser foot with knee, and bell crank (2) is used for controlling the stitch width (see Fig.33).

To raise or lower the presser foot with knee, loosen screw (4) holding the knee ligter shaft arm (3) and move knee lifter shaft arm (3) just under the bell crank (1), and firmly tighten screw (4) (see Fig.33).

Loosen the lock nut holding screw (7) and turn screw (7) as required, so that the bent end (6) of knee lifter shaft arm (3) will be alomost horizontal when knee lifter knee plate (5) is pushed as far as it will go in the direction indicated with arrow (A), then firmly tighten the lock nut (see Fig.33).

With knee lifter shaft arm (3) set in position as described above, loosen screw (8) and move knee lifter shaft arm (3) up op down as required, so that height (10) from its bent end (6) to bracket (9) is 64 mm (see Fig.33).

Raise presser foot (12) with presser foot lifter (11).Then loosen the lock nut holding screw (14) and turn screw (14) as required, so that knee lifter knee plate (5) when pushed in the direction indicated with arrow (B), will stop at a point (presser foot (12) raised approx.9 mm from throat plate (13) surface) where presser bar lifter (11) will drop down from its raised position when presser bat is lifted a little higher than its normal up position. Then firmly tighten the lock nut (see Fig.33).

When knee lifter knee plate (5) is pushed in the dirction indicated with arrow (B), the presser foot (12) will rise and when knee plate (5) is released, presser foot (12) will be lowered (see Fig.33).

KNEE OPERATING STITCH WIDTH CONTROL

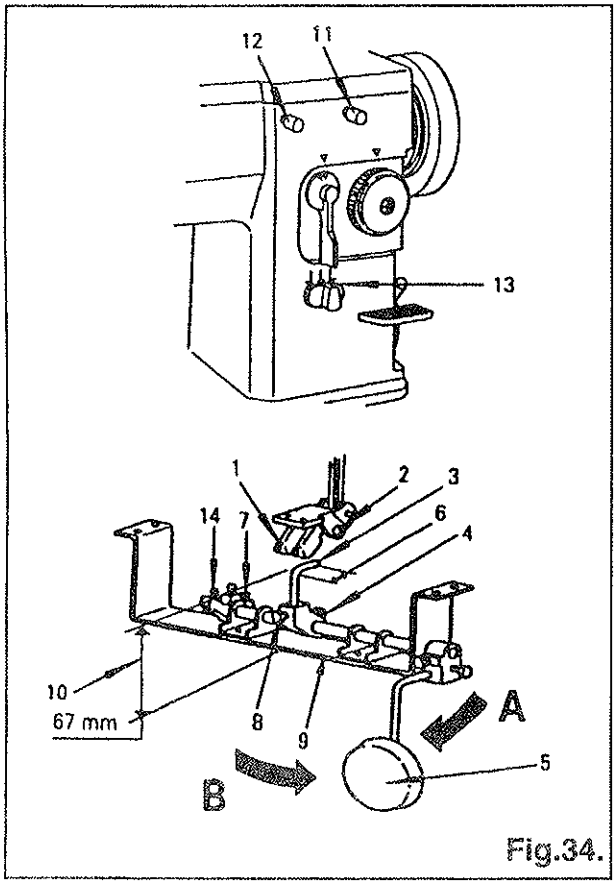


Fig.34.

CAUTION

Switch off the machine.
Set sewing head upright again using both hands.
Danger of crushing between sewing head and table top.

Bell cranks (1) and (2) shown in Fig.34 are fastened to the underside of the bed. Bell crank (1) is used for lifting and lowering the presser foot with knee and bell crank (2) is used for controlling the stitch width.

To control the stitch width with knee, loosen screw (4) holding the knee figter shaft arm (3) and move knee lifter shaft arm (3) just under the bell crank (2) and firmly tighten screw (4) (see Fig.34).

Loosen the lock nut holding screw (7) and turn screw(7) as required, so that the bent end (6) of knee lifter shaft arm (3) will be almost horizontal when knee lifter knee plate (5) is pushed as far as it will go in the direction indicated with arrow (A). Then firmly tighten the lock nut (see Fig.34).

With knee lifter shaft arm (3) set in position as described above, loosen screw (8) and move knee lifter shaft arm (3) up or down as required, so that geight (10) from its bent end (6) to bracket is 67 mm (see Fig.34).

Loosen stitch width regulating plate thumb screws (11) and (12) so that stitch width regulator (13) can be moved from zero to maximum stitch width.(20U73/73B:9mm, 20U83/83B: 12mm) (see Fig.34). Loosen the lock nut holding screw (14) and tum screw (14) as required, so that knee lifter knee plate (5) when pushed in the direction indicated with arrow (B), will stop at the maximum stitch width position of stitch sidth regulator (13). Then firmly tighten the lock niut (see Fig.34).

Stitch width will become wider when knee lifter knee plate (5) is pushed in the direction indicated with arrow (B) and will become smaller when knee plate is released (see Fig.34).

28.FITTINGS FOR BUTTONHOLE STITCHING

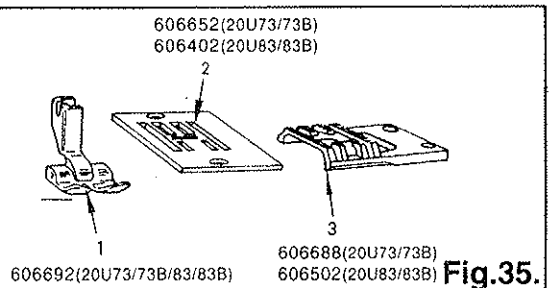


Fig.35.

CAUTION

Switch off the machine.

Buttonhole Foot (1),General Purpose Throat Plate (2) and Feed Dog (3) as shown in Fig.35 are used for buttonhole stitching.

29.FITTING FOR HEM SEWING

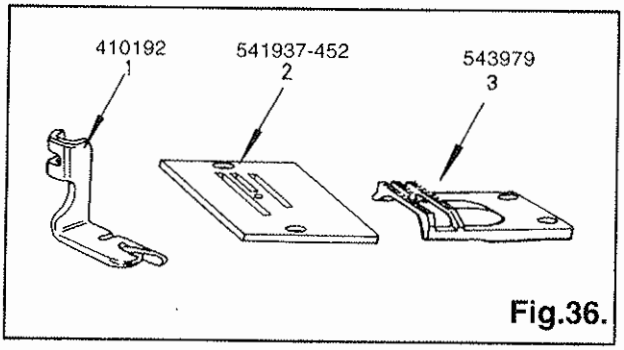


Fig.36.

CAUTION

Switch off the machine.

Hemmer Foot (1), Straight Stitch Troat Plate (2) and Feed Dog (3) as shown in Fig.36 are used for hem sewing.

30. FITTINGS FOR ZIPPER AND CORD SEWING

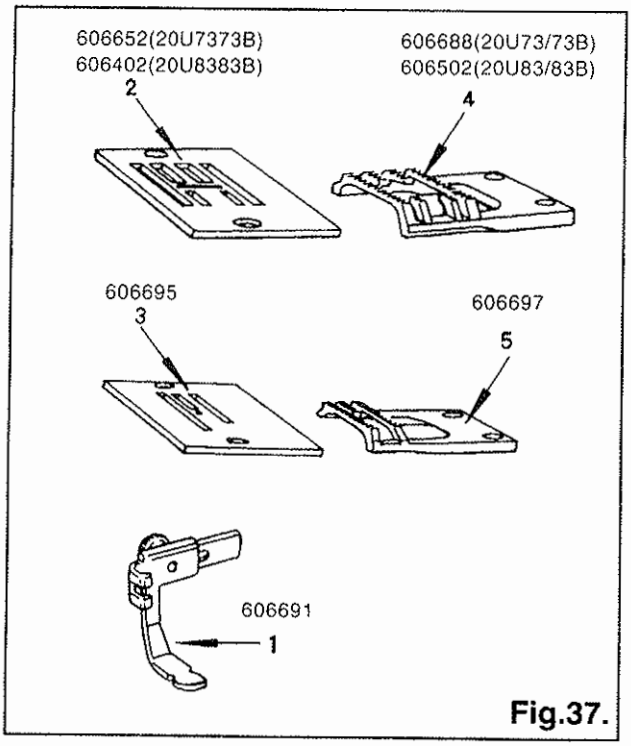


Fig.37.

CAUTION

Switch off the machine.

Zipper Foot (1), General Purpose (2) or Straight Stitch (3) Thorat Plate and General Purpose (4) or Stright Stitch (5) Feed Dog as shown in Fig.37 are used for zipper and cord sewing.

31.CARING FOR YOUR MACHINE

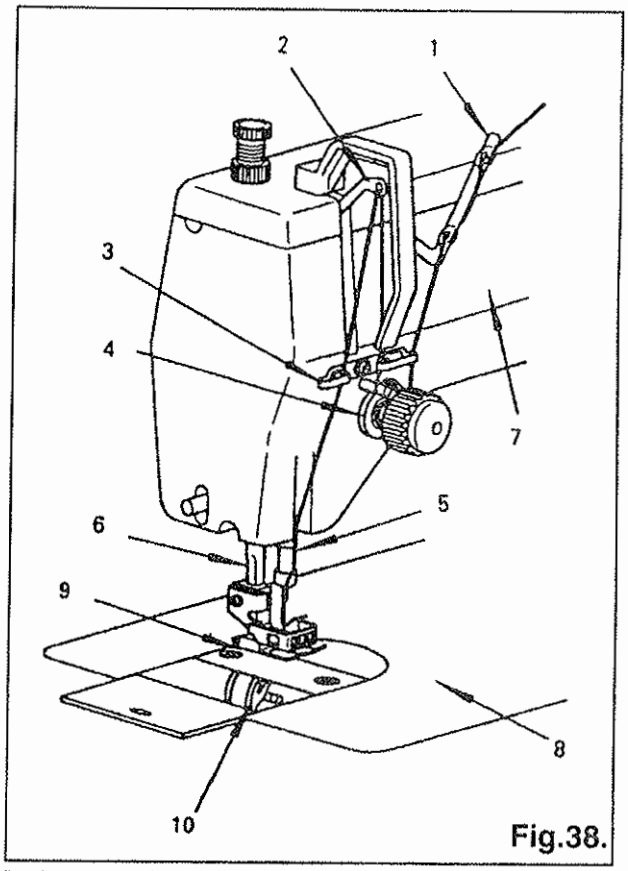


Fig.38.

CAUTION

Switch off the machine.
Set sewing head upright again using both hands.
Danger of crushing between sewing head and table top.

Your SINGER machine will serve you perfectly for many years if you take a few moments of your time to keep it clean. How often you will need to clean and lubricate the machine will depend on how often you will use it.
When in regular use, the machine should be cleaned periodically to remove lint and fluff which may have accumulated around the working parts. A machine in continuous use should be oiled frequently, especially when the machine is operated at maximum recommended speed.

With a soft cloth, clean; (See Fig.38)

(1)Thread retainer
(2)Take-up lever
(3)Thread guard
(4)Tension discs
(5)Needle bar
(6)Presser bar
(7)Machine arm and bed

With a lint brush, clean; (See Fig.38)

(9)Feed dog
(10)Rotating hook and area under throat plate.
Turn hand wheel over toward you until oil hole in rotating hook appears in sight.
Apply one or two drops of oil to the oil hole.

32.TROUBLESHOOTING CHART

Whenever sewing difficulty is encountered, check and make adjustments as follows.

Problem	Cause	Solution
Needle thread breaks	1.Is machine properly threaded?	1.Correct needle threading
	2.Are thread guides or tension disc area lint-free?	2.Remove lint and fluff in bobbin case and hook
	3.Is needle-thread tension too tight?	3.Adjust needle thread tension
	4.Is needle bent or have a blunt point?	4.Insert new needle
	5.Is needle inserted correctly?	5.Insert needle correctly
	6.Is needle the correct size for thread and fabric?	6.Select proper needle size and thread
	7.Is thread free of slubs and knots?	7.Remove slubs and knots
Bobbin thread breaks	8.Is bobbin threading correct?	8.correct boobin threading
	9.Is thread tangled or caught?	9.Untangle thread from bobbin case and hook
	10.Is thread tension correct?	10.Adjust needle and bobbin case thread tension
	11.Does bobbin rotate smoothly?	11.Check whether bobbin thread is wound correctly
Stitches skip	12.Is needle inserted correctly?	12.Insert needle correctly
	13.Is needle bent or have blunt needle point?	13.Insert new needle
	14.Is size of needle and thread suitable for fabric?	14.Select proper needle size and thread
	15.Is threading correct?	15.Correct needle threading
Needle breaks	16.Is needle properly inserted?	16.Insert needle correctly
	17.Is needle bent?	17.Insert new needle
	18.Is needle the correct size for the fabric?	18.Select proper needle and thread for fabric
	19.Is needle clamping screw loose?	19.Tighten needle set screw
	20.Is the fabric pulled while sewing?	20.Do not pull fabric while sewing
Fabric fails to feed	21.Is feed regulating dial properly adjusted?	21.Lengthen stitch length by feed regulating dial
	22.Is presser foot pressure adjusted properly?	22.Adjust correct presser foot pressure
Fabric puckers	23.Is needle threading correct?	23.Correct needle threading
	24.Is needle point blunt?	24.Insert new needle
	25.Is thread tension too tight?	25.Adjust needle tension properly
Rotating heavy Noisy	26.Is there any lint or fluff on feed dog?	26.Remove lint and fluff from feed dog
	27.Is there any lint in rotating hook?	27.Remove lint and fluff from rotating hook
Machine fails to start	28.Are electrical plugs properly eonnected?	28.Turn on power switch
	29.Is power and light switch turned on?	29.Connect plug to power source

If you still have difficulty in sewing even after making adjustments, contact your nearest Service Center.

33.SPECIFICATIONS

Machine class	73/73B	83/83B
For sewing	Light to medium	
Stitch type	301 (lock stitch), 304 (Zigzag lock stitch)	
Max. speed*	2,500 r.p.m.	2,000 r.p.m.
Max.stitch bight	9.0mm	12.0mm
Max.stitch length	5.0mm	5.0mm
Needle bar stroke	34.8mm	
Presser bar lift (manual)	6.35mm	
Presser bar lift (knee lifter)	9.0mm	
Needle catalog (needle system)	CAT.1910-05 (135X9)	
Needle size	See page 3 table "NEEDLE AND THREAD"	
Machine pulley	74mm effective dia. for V-belt	
Oil	"B" Oil	
Workispace width	211mm	
Workspace height	130mm	
Bedplate dimensions	399mmX178mm	
Net weight (head only)	19.5Kg	20.0Kg
Gross weight (with accessories)	21Kg	21.5Kg
Noise**	n=1,600 r.p.m. <76 dBA	

* Mzximum speed will vary depending on fabric, threads and sewing condition.
** Noise mesurment according to DIN 4563-45-A-1.

Relationship between zigzag bight and maximum speed

Machine class	73/73B		83/83B	
Zigzag bright	0mm~5mm	5mm~9mm	0mm~5mm	5mm~12mm
Max. speed	2,500 r.p.m	2,000 r.p.m	2,000 r.p.m	1,800 r.p.m

Part No. 606625(1100)
Printed in China

MODES OF SEWING AND APPLICATION OF ACCESSORIES

1. Linear Sewing

In case of linear sewing, the best effect and wider scope of application will be achieved if by adoption of the special linear presser foot, needle plate and material-feeding tooth (see Figure 24) rather than the multi-functional ones.

During linear sewing,the horizontal needle distance should be set to O position,and the linear locking unit with swaying rack of locking needle shaft can be used in combination with special presser foot, needle plate and material-feeding tooth. To replace material-feeding tooth, firstly remove needle plate and its inner cover, then push the thrust plate outward, release two screws, and replace the multi-functional material feeding tooth with the special one.

2. Embroidery

Preparation before embroidering

(1) It should be noted that and free regulation can be made at the horizontal needle distance. between O~12mm. Set the vertical needle distance to 0 position and will adjust the knee-control parts (see Figure 3) to make the component 2 control the movement of the component 3. As a result, the "knee"can be predicted to control the swaying of the needle;

(2) Remove the presser foot, needle plate,inner cover,thrust plate and material-feeding tooth. After that, the embroidering plate is put into use;

(3) Hold firmly the end of the surface stitches with your left hand, turn the belt pulley manually toward the operator, and then makes the bottom stitches pull out from the holes of the needle plate;

(4) Make sure to stretch tightly the material between the internal and external embroidering frame. Otherwise, skipping, stitches-breaking or material creased might be found (see Figure 26)

3. Zippered Sewing II

This mode is preferable to make use of zippered presser foot (see Figure 27) in a bid to make the stitches more accessible to the projecting stitches, Then release the screw 8, regulate the presser foot and set the needle to the presser foot and set the needle to the left and right grooves A of the presser foot. This mode is expected to suit for the sewings, seen in the I'7’igure 28.

4. Hem-wrapping mode

In this mode, the hem-wrapping presser foot can be used as we wish (see Figure 29). Re I move the multi-functional presser foot and replace it with the hem-wrapping one.This is also a mode of linear sewing with the needle set to the central position, shown as in the Figure 30, the hem-wrapping operation can be effected.

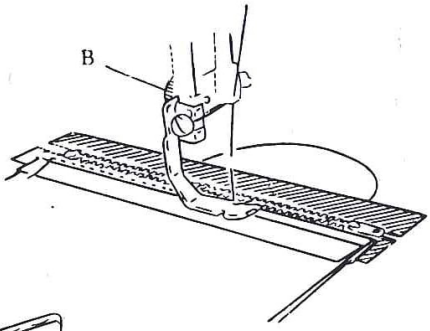
5. Stem-wrapping mode

During the sewing with the stem-wrapping mode,the special stem-wrapping presser foot,nee-dle plate and material-feeding tooth (see Figure 31) should be put into use. The needle is set to the central positon and the horizontal needle, distance set to 3mm, and then run the rougher thread through the small groove A on the stem-wrapping presser foot so that the sewing of this mode will be smoothly conducted (see Figure 32)

6. Decoration Sewing

If the left,central and right needle positions can be freely changeable and the horizontal needle distance skillfully controlled, the patterns of the decoration sewing will be well achieved as seen in the Figure 33.

7. Other modes of practical sewing (see Figure 34)



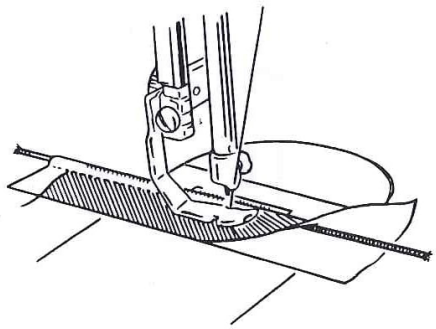


Figure 28

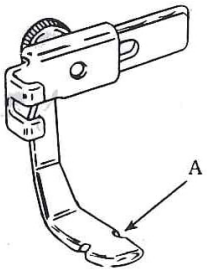


Figure 27

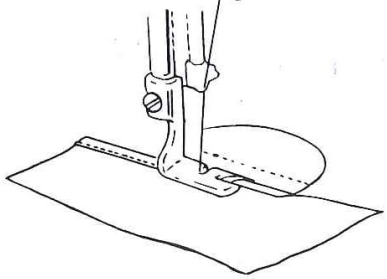


Figure 30

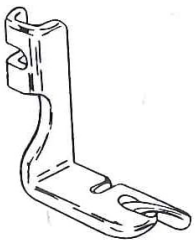


Figure 29

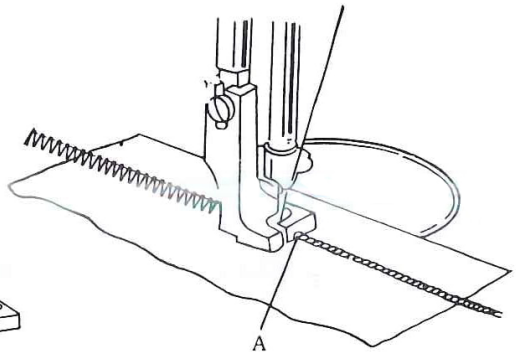


Figure 32

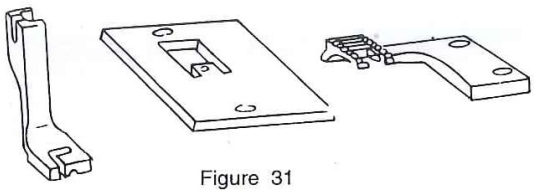


Figure 31

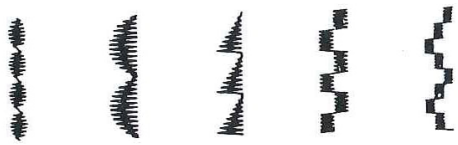
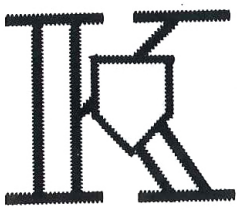


Figure 33

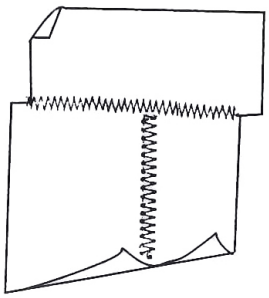
Figure 34.

Button Hole

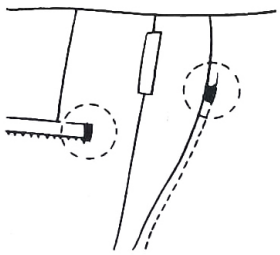
Lotus-leaves Embroidery



Word-Embroidery

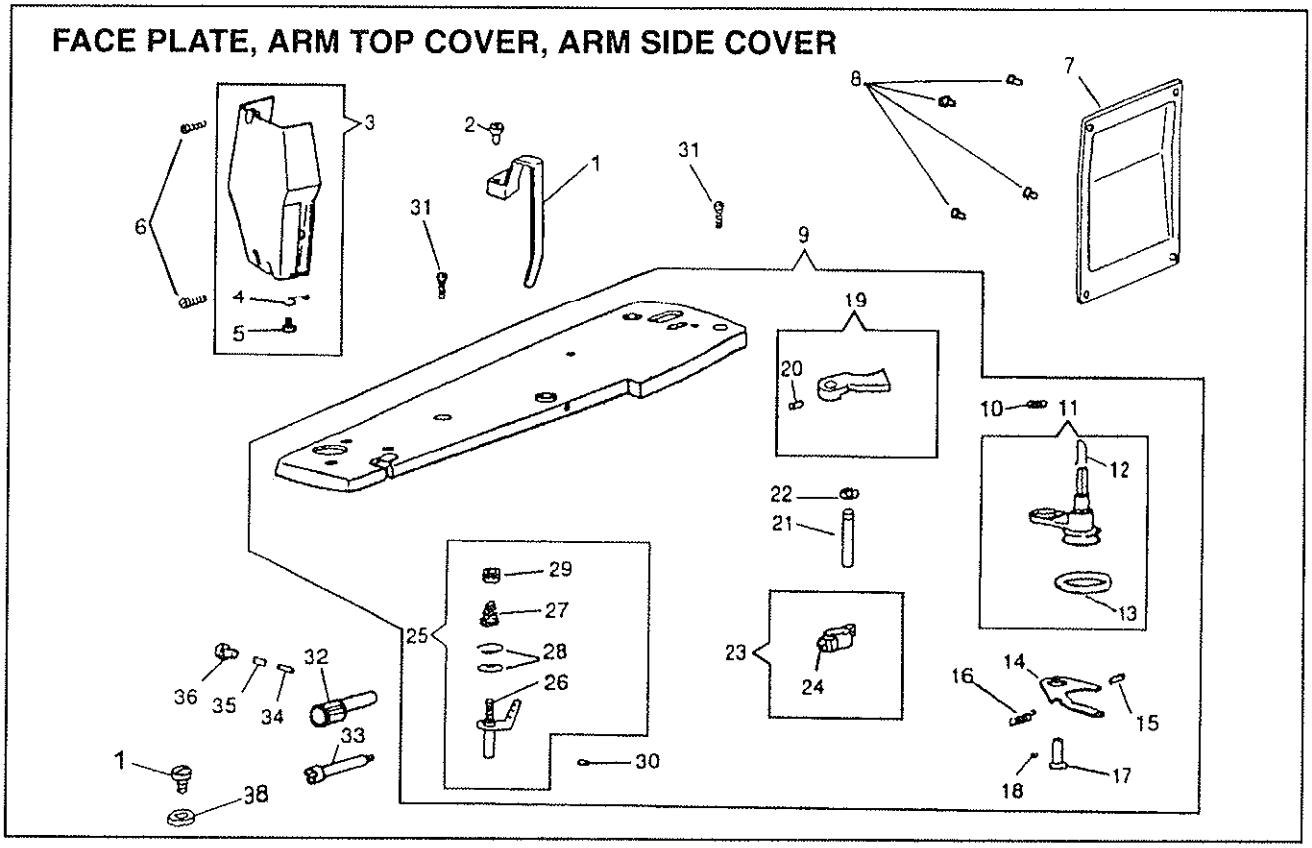


Piecing together sewing



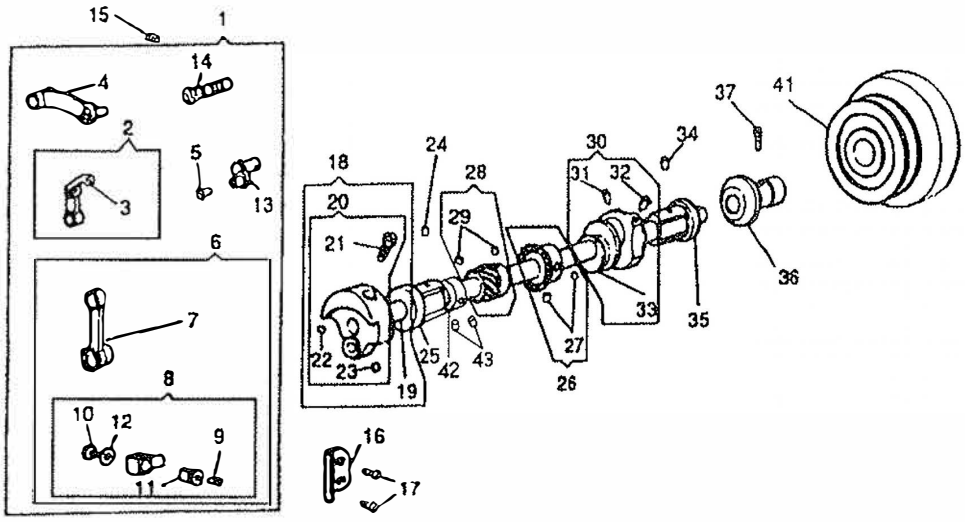
Looping Sewing

FACE PLATE, ARM TOP COVER, ARM SIDE COVER



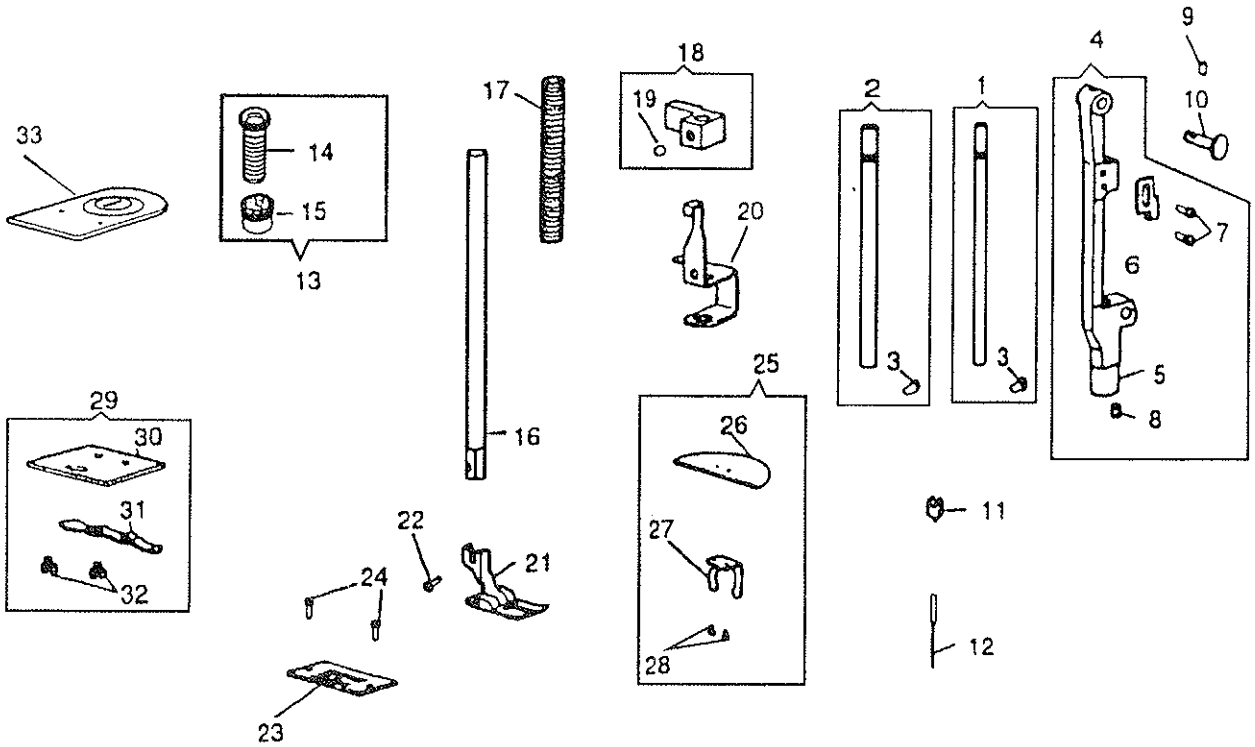
NO.	PART NO.	U73	U73B	U83	U83B	QTY.	DESCRIPTION
1	554113-383	*	*	*	*	1	Thread Take-up Guard
2	606407	*	*	*	*	1	Take-up Guard Screw
3	606395	*		*		1	Face Plate Comp.
	606395-460		*		*	1	
4	606632	*	*	*	*	1	Thread Guide
5	606633	*	*	*	*	1	Thread Guide Screw
6	606634	*	*	*	*	2	Screw
7	554118-385	*		*		1	Back Cover
	554118-362		*		*	1	
8	606635	*	*	*	*	4	Screw
9	606433	*		*		1	Arm Top Cover Comp.
	606433-460		*		*	1	
10	606636	*	*	*	*	1	Thrust Washer
11	606454	*	*	*	*	1	B/W Bracket Comp.
12	606637	*	*	*	*	1	Spring
13	606638	*	*	*	*	1	Friction O-ring
14	606452	*	*	*	*	1	B/W Regulating Plate
15	606453	*	*	*	*	1	Spring
16	606449	*	*	*	*	1	Spring
17	606451	*	*	*	*	1	Hinge Stud
18	606439	*	*	*	*	1	Set Screw
19	550032	*	*	*	*	1	B/W Lever Comp.
20	544208-005	*	*	*	*	1	B/W Lever Set Screw
21	606447	*	*	*	*	1	B/W Lever Stud
22	606448	*	*	*	*	1	B/W Lever Stud Ring
23	606446	*	*	*	*	1	B/W Regulator Comp.
24	544208-005	*	*	*	*	1	B/W Regulator Screw
25	606639	*	*	*	*	1	B/W Tension Comp.
26	606440	*	*	*	*	1	Bobbin Winder Tension Stud
27	606442	*	*	*	*	1	Bobbin Winder Tension Spring
28	606441	*	*	*	*	2	Bobbin Winder Tension Disc
29	606443	*	*	*	*	1	Tension Nut
30	606439	*	*	*	*	1	Screw
31	606602	*	*	*	*	2	Arm Top Cover Screw
32	606398	*	*	*	*	1	Eccentric Lock
33	606397	*	*	*	*	1	Eccentric Screw
34	554128	*	*	*	*	1	Stopper pin
35	554144	*	*	*	*	1	Stopper Spring
36	544212-001	*	*	*	*	1	Stopper Screw
37	606555	*	*	*	*	1	Screw (Earth)
38	606571	*	*	*	*	1	Washer (Earth)

THREAD TAKE-UP, ARM SHAFT, HAND WHEEL



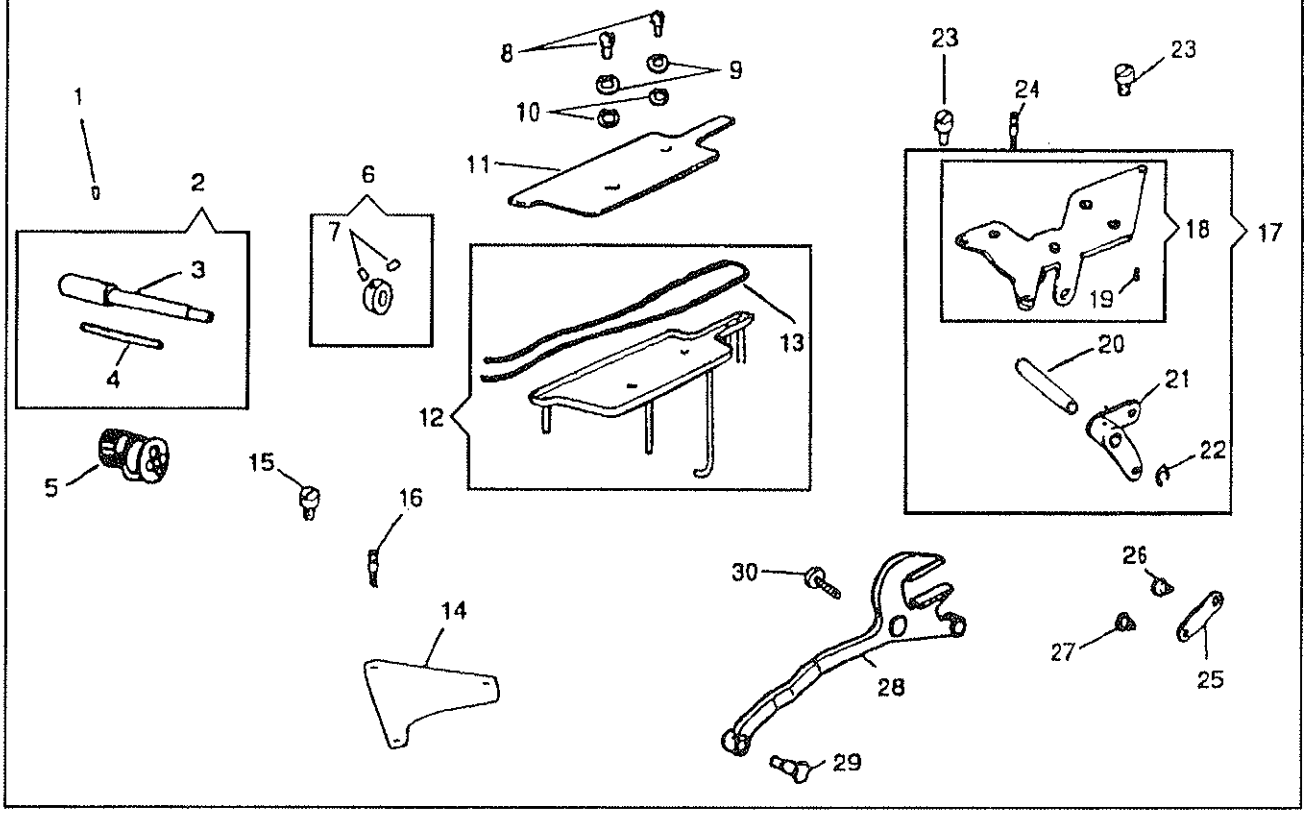
NO.	PART NO.	U73	U73B	U83	U83B	QTY.	DESCRIPTION
1	606640	*	*	*	*	1	Take-up Comp.
2	606475	*	*	*	*	1	Take-up
3	606474	*	*	*	*	1	Take-up Eyelet
4	606641	*	*	*	*	1	Take-up Lever Link
5	606471	*	*	*	*	1	Conn.Link Cap Screw
6	606642	*	*	*	*	1	N/B. Connecting Link Comp.
7	606472	*	*	*	*	1	N/B. Connecting Link
8	606466	*	*	*	*	1	Connecting Stud Comp.
9	606468	*	*	*	*	1	Set Screw
10	606464	*	*	*	*	1	Hinge Pin Screw
11	606467	*	*	*	*	1	Hinge Pin
12	606465	*	*	*	*	1	Pin Washer
13	606473	*	*	*	*	1	Take-up Crank
14	606643	*	*	*	*	1	Hinge Stud
15	606420	*	*	*	*	1	Set Screw
16	606469	*	*	*	*	1	Guide
17	606444	*	*	*	*	2	Screw
18	606644	*	*	*	*	1	Arm Shaft and N/B Crank Comp.
19	606484	*	*	*	*	1	Arm Shaft
20	606478	*	*	*	*	1	N/B. Crank Comp.
21	606477	*	*	*	*	1	N/B Crank Posn.Screw
22	504066	*	*	*	*	1	Position Screw
23	504101	*	*	*	*	1	Crank Posn. Screw
24	606480	*	*	*	*	1	Bushing Set Screw
25	606481	*	*	*	*	1	Front Bush
26	541606	*	*	*	*	1	Bevel Gear Comp.
27	504066	*	*	*	*	2	Bevel Gear Set Screw
28	541607	*	*	*	*	1	Worm Gear Comp.
29	504028	*	*	*	*	2	Worm Gear Screw
30	606483	*	*	*	*	1	Feed Eccentric Comp.
31	606482	*	*	*	*	1	Feed Eccentric Screw
32	606482	*	*	*	*	1	Feed Eccentric Screw
33	606645	*	*	*	*	1	Retaining Ring
34	606480	*	*	*	*	1	Arm Shaft Bushing Screw
35	606485	*	*	*	*	1	Arm Shaft Bushing, back
36	606487	*	*	*	*	1	CSM Flanged Bushing
37	606488	*	*	*	*	1	CSM Bushing Set Screw
38					*	1	
39					*	1	
40					*	1	
41	606489	*	*	*	*	1	Handwheel
42	606712	*	*	*	*	1	Retaining Collar comp.
43	606713	*	*	*	*	2	Rectaining Collar screw

NEEDLE BAR, PRESSER BAR, THROAT PLATE



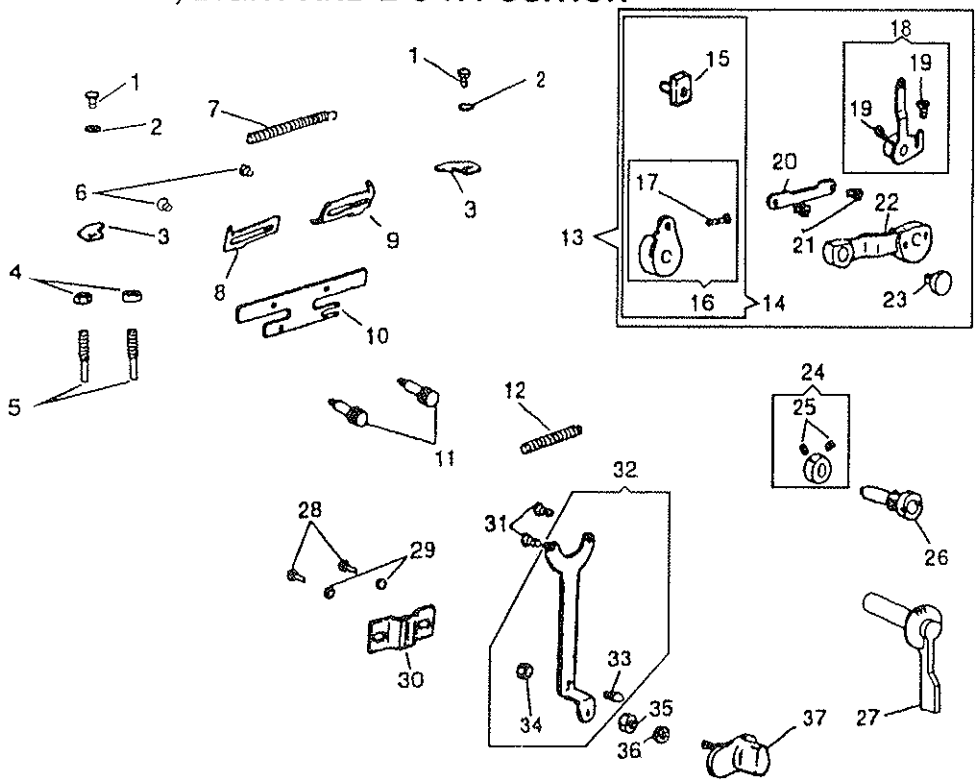
NO.	PART NO.	U73	U73B	U83	U83B	QTY.	DESCRIPTION
1	606646	*	*			1	Needle Bar
2	606461			*	*	1	Needle Bar
3	606463	*	*	*	*	1	Needle Clamp Screw
4	606647	*	*	*	*	1	Needle Bar Frame Comp.
5	606456	*	*	*	*	1	Needle Bar Frame
6	606458	*	*	*	*	1	Indicator Plate
7	606459	*	*	*	*	2	Indicator Plate Screw
8	606457	*	*	*	*	1	Ecc. Pin Set Screw
9	606516	*	*	*	*	1	Set Screw
10	606460	*	*	*	*	1	N/B Frame Pin
11	606462	*	*	*	*	1	Needle Bar Tread Guard
12	N1910-0514	*	*	*	*	1	Needle(size #14)
13	606648	*	*	*	*	1	P/B Thumb Screw & Nut Comp.
14	606592	*	*	*	*	1	Presser Bar Thumb Screw
15	606649	*	*	*	*	1	Presser Bar Thumb Screw Nut
16	606594	*	*	*	*	1	Presser Bar
17	606593	*	*	*	*	1	Presser Bar Spring
18	606600	*	*	*	*	1	Presser Bar Bracket Comp.
19	606599	*	*	*	*	1	Screw
20	606601	*	*	*	*	1	Presser Bar Lifting Bracket
21	606650	*	*			1	Presser Foot Comp.
	606651			*	*	1	Presser Foot Comp.
22	606444	*	*	*	*	1	Presser Foot Screw
23	606652	*	*			1	Needle Plate
	606402			*	*	1	Needle Plate
24	606403	*	*	*	*	2	Needle Plate Screw
25	606653	*	*	*	*	1	Bed Plate Comp.
26	606404	*	*	*	*	1	Bed Plate
27	606405	*	*	*	*	1	Bed Plate Spring
28	606401	*	*	*	*	2	Bed Plate Screw
29	606654	*	*	*	*	1	Slide Plate Comp.
30	606399	*	*	*	*	1	Slide Plate
31	606400	*	*	*	*	1	Slide Plate Spring
32	606401	*	*	*	*	2	Slide Plate Spring Screw

ZIGZAG TRIANGULAR CAM, HOOK ADVANCING CRANK



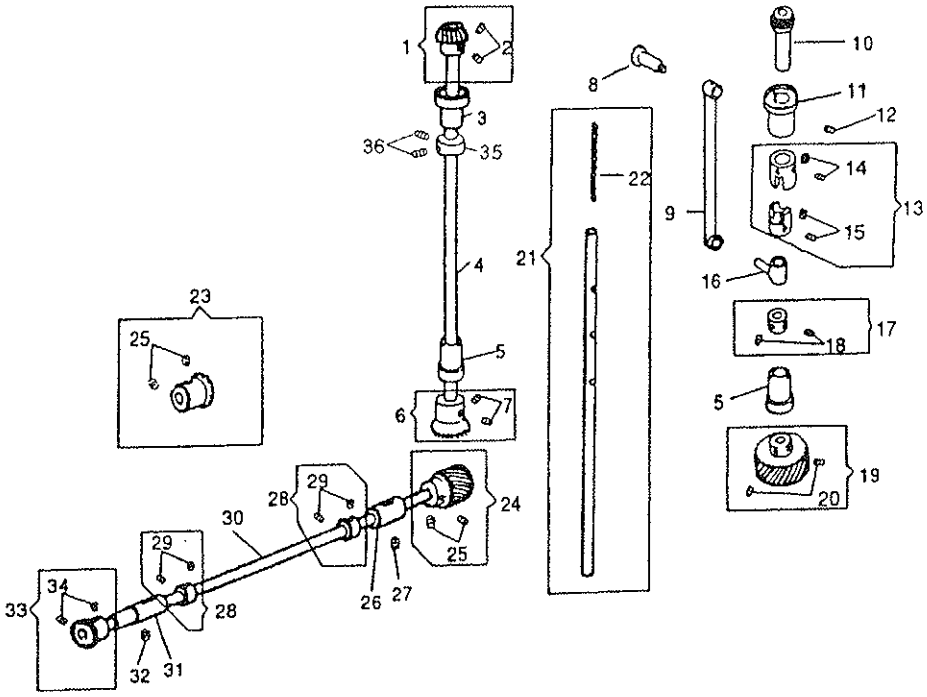
NO.	PART NO.	U73	U73B	U83	U83B	QTY.	DESCRIPTION
1	606420	*	*	*	*	1	Set Screw
2	606539	*	*	*	*	1	Cam Shaft Comp.
3	606655	*	*	*	*	1	Cam Shaft
4	606656	*	*	*	*	1	Cam Shaft Oil Wick
5	410031	*	*			1	Zig Zag Cam and Gear Comp.
	410056			*	*	1	Zig Zag Cam and Gear Comp.
6	606542	*	*	*	*	1	Cam Shaft Collar Comp.
7	606541	*	*	*	*	2	Collar Set Screw
8	606444	*	*	*	*	2	Screw
9	606590	*	*	*	*	2	Spring Washer
10	606589	*	*	*	*	2	Washer
11	606588	*	*	*	*	1	Oil Felt
12	606657	*	*			1	Oil Reservoir Comp.
	606586			*	*	1	Oil Reservoir Comp.
13	606658	*	*			1	Oil Wick
	606587			*	*	1	Oil Wick
14	606659	*	*			1	Oil Reservoir Bracket
15	606660	*	*			1	Set Screw
16	606584	*	*			1	Set Screw(Front)
17	606661			*	*	1	Hook Advancing Bracket Comp.
18	606581			*	*	1	Hook Advancing Crank Bracket
19	606559			*	*	1	Set Screw
20	606580			*	*	1	Hook Advancing Crank Shaft
21	606579			*	*	1	Hook Advancing Crank
22	606578			*	*	1	Snap Ring
23	606662			*	*	2	Set Screw
24	606584			*	*	1	Spring Support
25	606544			*	*	1	Hook Advancing Crank Link
26	606550			*	*	1	Hinge Screw
27	606543			*	*	1	Hinge Screw
28	606663	*	*			1	Zig Zag Stitch Reg. Fork
	606538			*	*	1	Zig Zag Stitch Reg. Fork
29	606545	*	*	*	*	1	Fork Eccentric Connection Pin
30	606664	*	*			1	Slide Block Cap Screw

BIGHT AMPLITUDE, BIGHT AND L-C-R POSITION



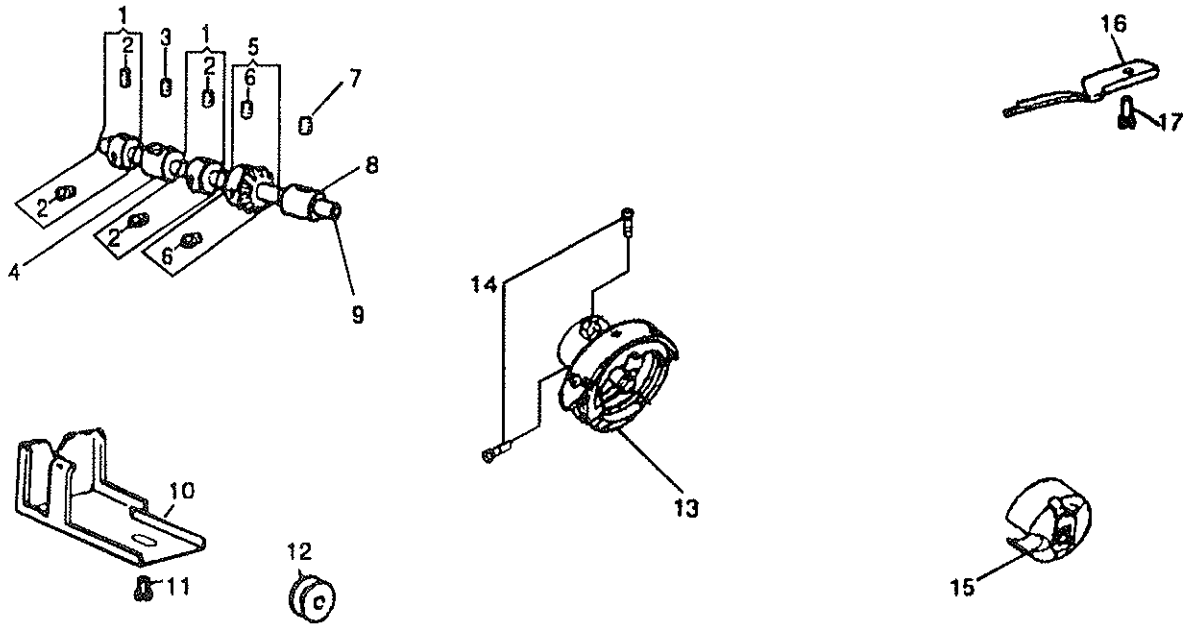
NO.	PART NO.	U73	U73B	U83	U83B	QTY.	DESCRIPTION
1	606511	*	*	*	*	2	Screw
2	606571	*	*	*	*	2	Washer
3	606569	*	*	*	*	2	Stop Plate
4	606554	*	*	*	*	2	Lever Arm Reg.Screw Nut
5	606553	*	*	*	*	2	Lever Arm Reg.Screw
6	606572	*	*	*	*	2	Screw
7	606577	*	*	*	*	1	Spring
8	606575	*	*	*	*	1	Regulating Plate, left
9	606576	*	*	*	*	1	Regulating Plate, right
10	606574	*	*	*	*	1	Reg.Plate Holder
11	606573	*	*	*	*	2	Thumb Screw
12	606556	*	*	*	*	1	Spring
13	606665	*	*			1	Bight Amplitude Control Mech. Comp.
	606666			*	*	1	Bight Amplitude Control Mech. Comp.
14	606667	*	*			1	Slide Block & Guide Comp.
	606668			*	*	1	Slide Block & Guide Comp.
15	606546	*	*	*	*	1	Slide Block
16	606669	*	*			1	Slide Block Guide Comp.
	606547			*	*	1	Slide Block Guide Comp.
17	606670	*	*	*	*	1	Guide Stud Set Screw
18	606557	*	*	*	*	1	Slide Block Crank Comp.
19	606555	*	*	*	*	2	Slide Block Crank Set Screw
20	606549	*	*	*	*	1	Slide Block Crank Link
21	606671	*	*	*	*	2	Hinge Screw
22	606551	*	*	*	*	1	Position Lever Arm
23	606552	*	*	*	*	1	Guide Stud
24	606560	*	*	*	*	1	Collar Comp.
25	606518	*	*	*	*	2	Collar Set Screw
26	606562	*	*	*	*	1	Crank Shaft Bushing
27	554139-383	*	*	*	*	1	Crank Shaft Knob Comp.
28	606564	*	*	*	*	2	Position Block Screw
29	606568	*	*	*	*	2	Position Block Screw Washer
30	606673	*	*			1	Position Block
	606563			*	*	1	Position Block
31	606674	*	*	*	*	2	Position Lever Screw
32	606566	*	*	*	*	1	Position Lever Comp.
33	606565	*	*	*	*	1	Position Lever Screw Pin
34	606675	*	*	*	*	1	Position Lever Screw Pin Nut
35	606675	*	*	*	*	1	Thumb Stud Nut
36	606676	*	*	*	*	1	Thumb Stud Spring Washer
37	554140-383	*	*	*	*	1	Thumb Stud

ARM SHAFT (UPRIGHT), ROTATING HOOK DRIVE SHAFT



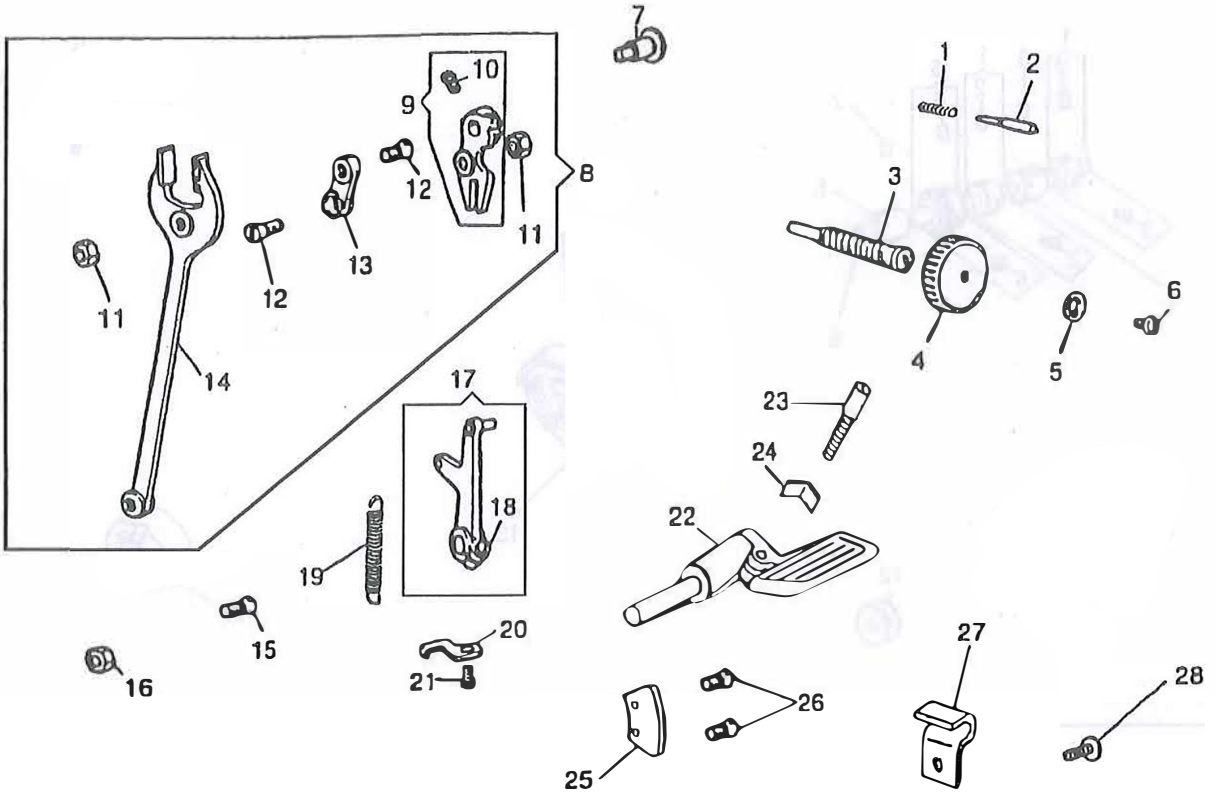
NO.	PART NO.	U73	U73B	U83	U83B	QTY.	DESCRIPTION
1	541610	*	*			1	Bevel Gear Comp.
2	504101	*	*			2	Bevel Gear Set Screw
3	606677	*	*			1	Arm Shaft Bushing, upper
4	606678	*	*			1	Arm Shaft (Upright)
5	606527	*	*	*	*	1	Upright Bushing, lower
6	541609	*	*			1	Bevel Gear Comp.
7	504101	*	*			2	Bevel Gear Set Screw
8	606585			*	*	1	Connection Screw
9	606536			*	*	1	Hook Advance Crank Connecting Rod
10	606535			*	*	1	Bevel Gear
11	606533			*	*	1	Upright Bushing, upper
12	606534	*	*	*	*	1	Bushing Set Screw
13	606679			*	*	1	Clutch Sleeve Comp.
14	504101			*	*	2	Clutch Sleeve Screw
15	504101			*	*	2	Clutch Sleeve Screw
16	606528			*	*	1	Connecting Stud
17	606523			*	*	1	Retaining Collar Comp.
18	504101			*	*	2	Retaining Collar Screw
19	543914			*	*	1	Screw Gear Comp.
20	504101			*	*	2	Gear Set Screw
21	606537			*	*	1	Arm Shaft (Upright) Comp.
22	606680			*	*	2	Arm Shaft Oil Wick
23	541684	*	*			1	Bevel Gear Comp.
24	543944			*	*	1	Screw Gear Comp.
25	504101	*	*	*	*	2	Screw Gear Set Screw
26	606681	*	*			1	Hook Drive Shaft Bushing
	606525			*	*	1	Hook Drive Shaft Bushing
27	606420	*	*	*	*	1	Set Screw
28	606523	*	*			1	Retaining Collar Comp.
	606523			*	*	2	Retaining Collar Comp.
29	504101	*	*			2	Retaining Collar Screw
	504101			*	*	4	Retaining Collar Screw
30	606682	*	*			1	Hook Drive Shaft
	606526			*	*	1	Hook Drive Shaft
31	606522	*	*	*	*	1	Hook Drive Shaft Bush
32	606420	*	*	*	*	1	Set Screw
33	541685	*	*	*	*	1	Bevel Gear Comp.
34	504101	*	*	*	*	2	Bevel Gear Screw
35	606523	*	*			1	Arm Shaft (Upright) Collar Comp.
36	504101	*	*			2	Arm Shaft (Upright) Collar Screw

HOOK, BOBBIN CASE



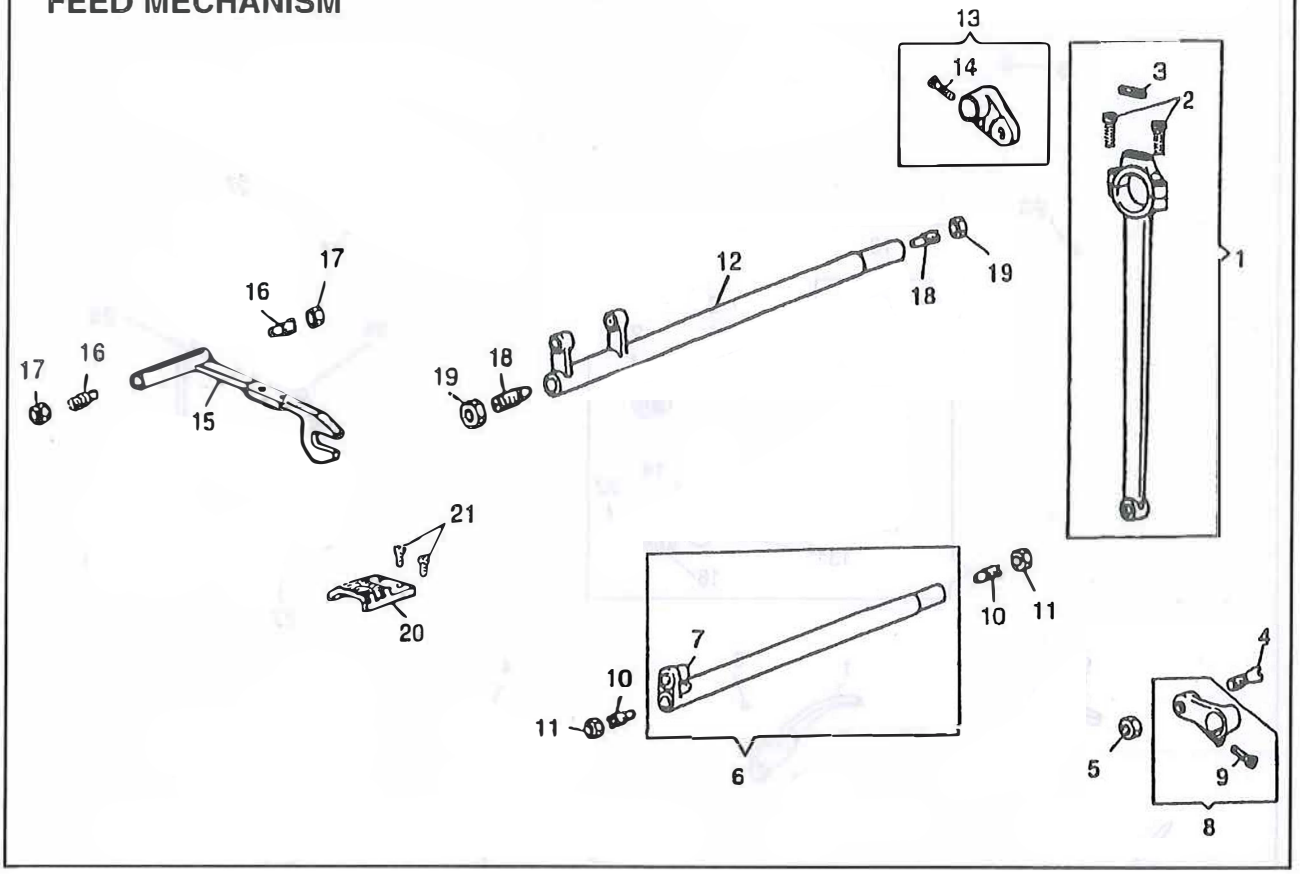
NO.	PART NO.	U73	U73B	U83	U83B	QTY.	DESCRIPTION
1	606517	*	*	*	*	2	Hook Shaft Collar Comp.
2	606518	*	*	*	*	4	Hook Shaft Collar Screw
3	606516	*	*	*	*	1	Set Screw
4	606519	*	*	*	*	1	Hook Shaft Bush, short
5	541689	*	*	*	*	1	Bevel Gear Comp.
6	504101	*	*	*	*	2	Bevel Gear Screw
7	606516	*	*	*	*	1	Set Screw
8	606515	*	*	*	*	1	Hook Shaft Bush, long
9	606520	*	*	*	*	1	Hook Shaft
10	606410	*	*	*	*	1	Gear Shield
11	606444	*	*	*	*	1	Screw
12	606513	*	*	*	*	1	Bobbin
13	606683	*	*			1	Rotating Hook Comp.
	606514			*	*	1	Rotating Hook Comp.
14	606684	*	*	*	*	2	Rotating Hook Set Screw
15	606512	*	*	*	*	1	Bobbin Case Comp.
16	606510	*	*	*	*	1	Hook Position Finger
17	606511	*	*	*	*	1	Position Finger Screw

FEED REGULATING DIAL, FEED REVERSE LEVER



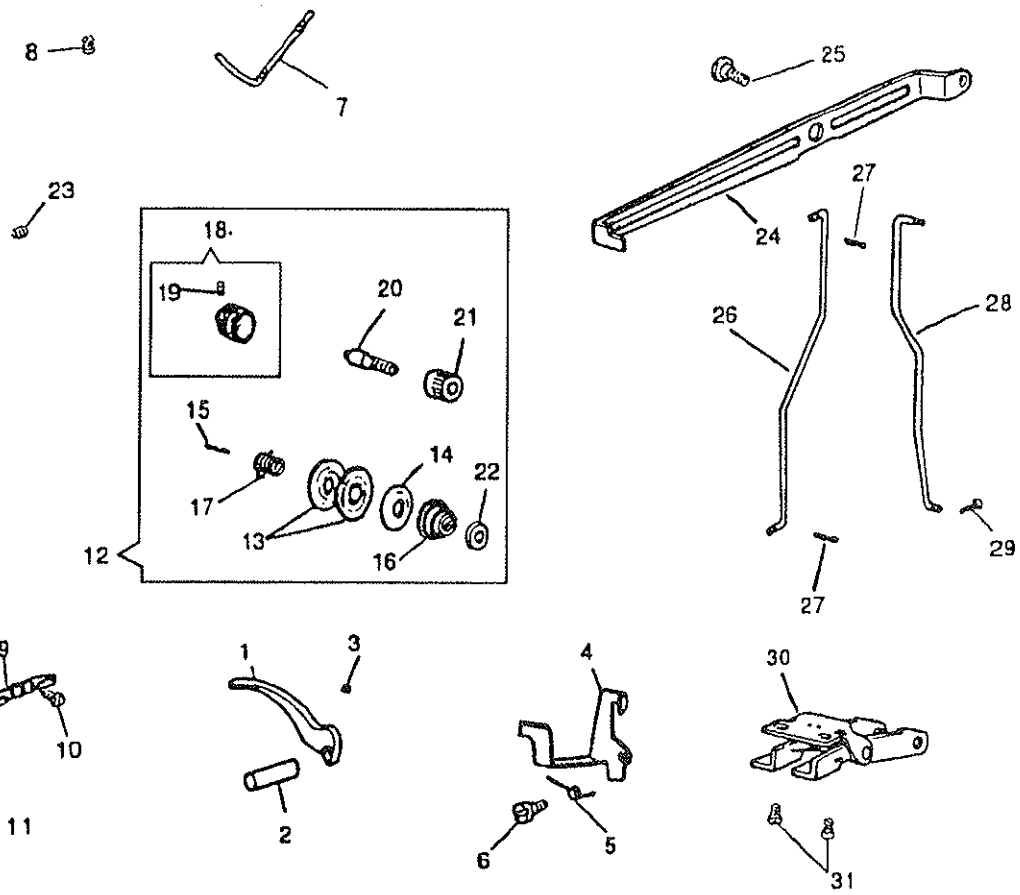
NO.	PART NO.	U73	U73B	U83	U83B	QTY.	DESCRIPTION
1	606618	*	*	*	*	1	Spring
2	606617	*	*	*	*	1	Stud Lock Pin
3	606609	*	*	*	*	1	Feed Regulating Stud
4	554138-383	*	*	*	*	1	Feed Regulation Dial
5	543803-004	*	*	*	*	1	Dial Screw Washer
6	544218-053	*	*	*	*	1	Dial Screw
7	606610	*	*	*	*	1	Hinge Stud
8	606685	*	*	*	*	1	Feed Regulator & Fork Comp.
9	606611	*	*	*	*	1	Feed Regulator Comp.
10	606686	*	*	*	*	1	Screw
11	606494	*	*	*	*	2	Hinge Screw Nut
12	606496	*	*	*	*	2	Hinge Screw
13	606495	*	*	*	*	1	Feed Connecting Link
14	606509	*	*	*	*	1	Feed Fork Connection.
15	606496	*	*	*	*	1	Hinge Screw
16	606494	*	*	*	*	1	Hinge Screw Nut
17	606615	*	*	*	*	1	Reverse Lever Link Comp.
18	606434	*	*	*	*	1	Clamp Screw
19	606612	*	*	*	*	1	Spring
20	606614	*	*	*	*	1	Spring Bracket
21	606602	*	*	*	*	1	Screw
22	554131-467	*	*	*	*	1	Reverse Lever Comp.
23	374564	*	*	*	*	1	Adjusting Screw
24	554134	*	*	*	*	1	Adjusting Screw Friction
25	554136	*	*	*	*	1	Indicator Plate
26	504010-453	*	*	*	*	2	Indicator Plate Screw
27	554135	*	*	*	*	1	Adjusting Screw Stopper
28	544213-001	*	*	*	*	1	Stopper Set Screw

FEED MECHANISM



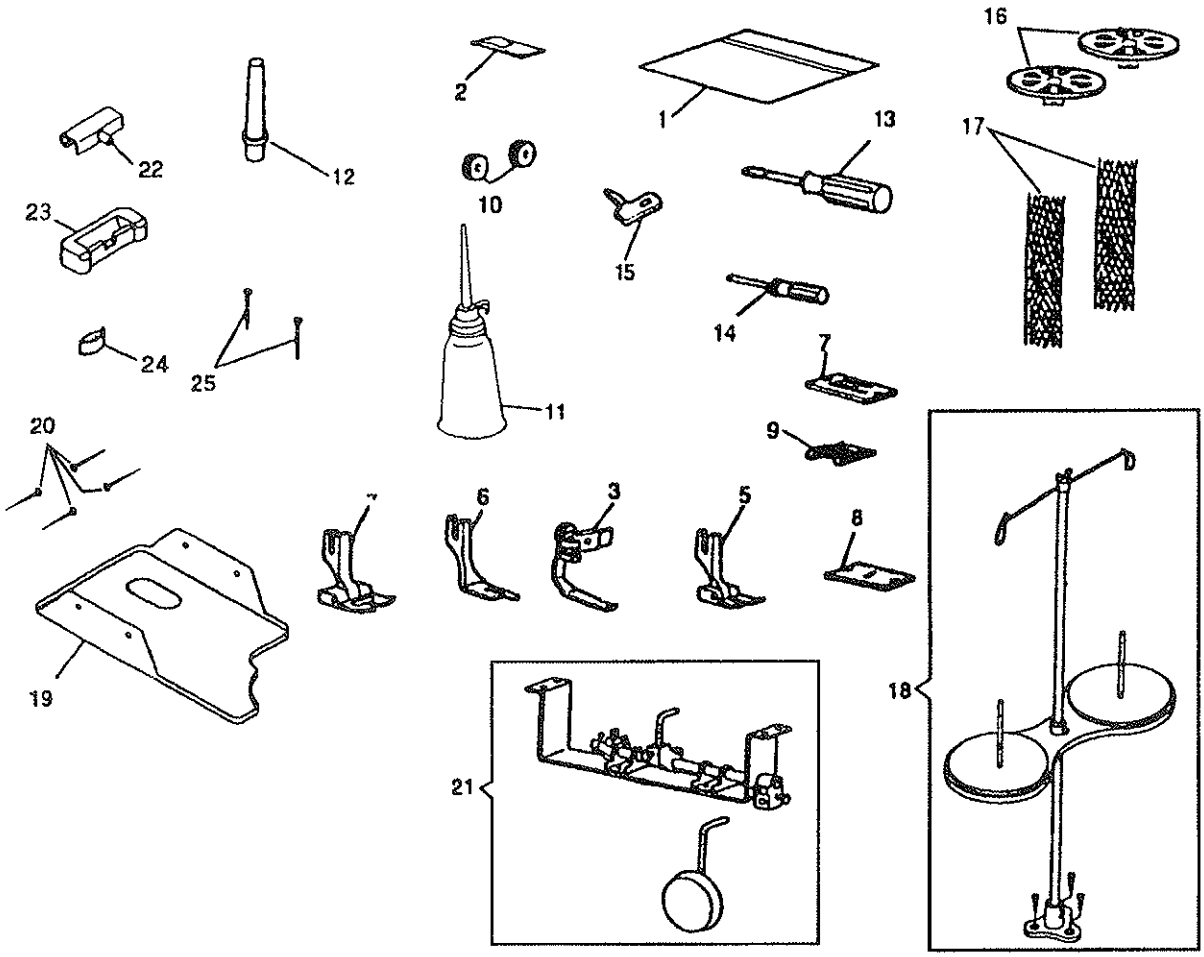
NO.	PART NO.	U73	U73B	U83	U83B	QTY.	DESCRIPTION
1	606493	*	*	*	*	1	Connecting Rod Comp.
2	606434	*	*	*	*	2	Connecting Rod Cap Screw
3	606492	*	*	*	*	1	Oil Felt
4	606496	*	*	*	*	1	Hinge Screw
5	606494	*	*	*	*	1	Hinge Screw Nut
6	606507	*	*	*	*	1	Feed Lifting Rock Shaft Comp.
7	606687	*	*	*	*	1	Roller and Stud
8	606508	*	*	*	*	1	Lifting Rock Shaft Crank Comp.
9	606500	*	*	*	*	1	Crank Clamping Screw
10	606497	*	*	*	*	2	Screw Center
11	606498	*	*	*	*	2	Screw Center Nut
12	606505	*	*	*	*	1	Feed Rock Shaft
13	606499	*	*	*	*	1	Feed Rock Shaft Crank Comp.
14	606500	*	*	*	*	1	Crank Clamping Screw
15	606506	*	*	*	*	1	Feed Bar
16	606503	*	*	*	*	2	Screw Center
17	606504	*	*	*	*	2	Screw Center Nut
18	606497	*	*	*	*	2	Screw Center
19	606498	*	*	*	*	2	Screw Center Nut
20	606688	*	*			1	Feed Dog
	606502			*	*	1	Feed Dog
21	606501	*	*	*	*	2	Feed Dog Screw

PRESSER BAR LIFTER, TENSION



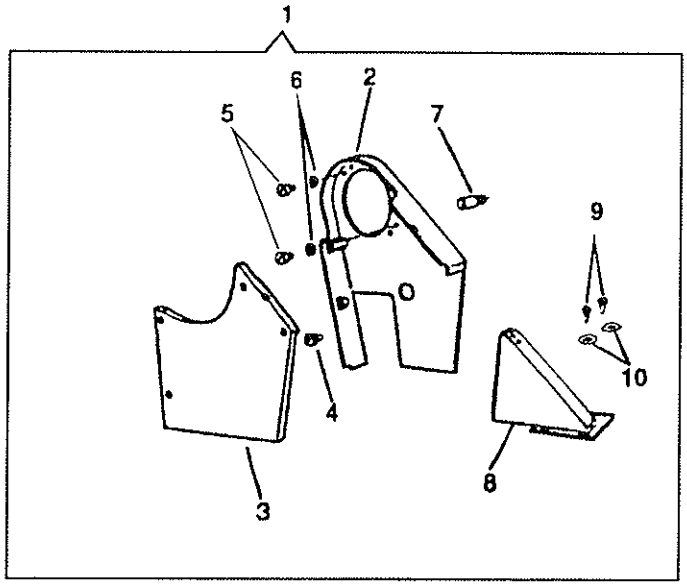
NO.	PART NO.	U73	U73B	U83	U83B	QTY.	DESCRIPTION
1	606598	*	*	*	*	1	Hand Lifter Lever
2	606597	*	*	*	*	1	Hand Lifter Lever Pin
3	606599	*	*	*	*	1	Screw
4	606413	*	*	*	*	1	Tension Release Lever
5	606412	*	*	*	*	1	Tension Release Lever Screw Spring
6	606411	*	*	*	*	1	Tension Release Lever Screw
7	410413	*	*	*	*	1	Thread Retainer
8	606518	*	*	*	*	1	Thread Retainer Screw
9	606416	*	*	*	*	1	Thread Guide
10	606444	*	*	*	*	1	Thread Guide Screw
11	606414	*	*	*	*	1	Thread Guard Pin
12	606689	*	*	*	*	1	Tension Comp.
13	606425	*	*	*	*	2	Tension Disc
14	606426	*	*	*	*	1	Tension Releasing Disc
15	606418	*	*	*	*	1	Tension Release Pin
16	606427	*	*	*	*	1	Tension Spring
17	606422	*	*	*	*	1	Thread Take-up Spring
18	606419	*	*	*	*	1	Tension Base Comp.
19	606421	*	*	*	*	1	Tension Securing Screw
20	606424	*	*	*	*	1	Tension Stud
21	606429	*	*	*	*	1	Thumb Nut
22	606428	*	*	*	*	1	Thumb Nut Washer
23	600420	*	*	*	*	1	Set Screw
24	606607	*	*	*	*	1	Lifting Lever
25	606608	*	*	*	*	1	Hinge Screw
26	606605	*	*	*	*	1	Connecting Rod
27	606604	*	*	*	*	2	Connecting Rod Pin
28	606606	*	*	*	*	1	Connecting Rod
29	606604	*	*	*	*	1	Connecting Rod Pin
30	606603	*	*	*	*	1	Bell Crank Comp.
31	606602	*	*	*	*	2	Screw

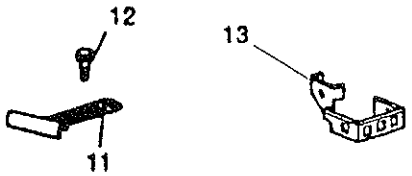
ACCESSORIES AND ATTACHMENT 1

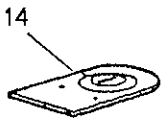


NO.	PART NO.	U73	U73B	U83	U83B	QTY.	DESCRIPTION
1	606690	*	*	*	*	1	Accessory Box
2	N1910-0514	*	*	*	*	3	Needle (Size #14)
3	606691	*	*	*	*	1	Zipper Foot
4	606692	*	*	*	*	1	Presser Foot Comp. (for Button Holing)
5	606693	*	*	*	*	1	Presser Foot Comp. (for Straight Stitching)
6	606694	*	*	*	*	1	Hemmer Foot Comp.
7	606695	*	*	*	*	1	Needle Plate (for Straight Stitching)
8	606696	*	*	*	*	1	Needle Plate (for Embroidery)
9	606697	*	*	*	*	1	Feed Dog (for Straight Stitching)
10	606513	*	*	*	*	2	Bobbin
11	606698	*	*	*	*	1	Oiler
12	606699	*	*	*	*	1	Machine Rest Pin
13	606700	*	*	*	*	1	Screw Driver(large)
14	606701	*	*	*	*	1	Screw Driver(Small)
15	606702	*	*	*	*	1	Screw Driver(for Needle Plate)
16	606703	*	*	*	*	2	Thread Unwinder Spool Cap
17	606704	*	*	*	*	2	Thread Unwinder Spool Net
18	606705	*	*	*	*	1	Thread Unwinder Comp.
19	606706	*	*	*	*	1	Drip Pan
20	606707	*	*	*	*	4	Drip Pan Nail
21	606708	*	*	*	*	1	Knee Lifter Comp.
22	606709	*	*	*	*	2	Machine Hinge
23	606710	*	*	*	*	2	Machine Hinge Cushion
24	606711	*	*	*	*	4	Machine Cushion
25	606707	*	*	*	*	6	Nail

PARTS AVAILABLE AT EXTRA CHARGE







NO.	PART NO.	U73	U73B	U83	U83B	QTY.	DESCRIPTION
1	281840-383	*	*	*	*	1	Belt Guard Comp.
2	281833-383	*	*	*	*	1	Belt Guard (Upper)
3	281834-383	*	*	*	*	1	Belt Guard (Upper) Cover
4	549116	*	*	*	*	1	Belt Guard (Upper) Screw
5	504063-451	*	*	*	*	2	Belt Guard (Upper) Screw
6	543875-104	*	*	*	*	2	Belt Guard (Upper) Screw Washer
7	544241	*	*	*	*	1	Belt Guard (Upper) Screw Stud
8	281835-383	*	*	*	*	1	Belt Guard (Lower)
9	549398	*	*	*	*	2	Belt Guard (Lower) Wood Screw
10	543803-003	*	*	*	*	2	Belt Guard (Lower) Wood Screw Washer
11	541515-001	*	*	*	*	1	Cloth Guide
12	504030	*	*	*	*	1	Cloth Guide Thumb Screw
13	281822	*	*	*	*	1	Finger Guard
14	410076			*	*	1	Needle Plate Comp. (for Embroidery)

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